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FEBRUARY 1, 1926

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The AMERICAN RIFLEMAN

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WASHINGTON, D. C., FEBRUARY 1, 1926

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Annual Meeting of the U.S.R.A.

By Jack Rohan

A MOVEMENT by the shooters of the country to present a united front against the anti-gun fanatics and pacifists, marked the annual meeting of the United States Revolver Association which was held in the 71st Regiment Armory in New York City, the evening of June 18. This took the form of a resolution passed unanimously, making THE AMERICAN RIFLEMAN an official publication of the U. S. R. A., and appointing a publicity committee to supply THE AMERICAN RIFLEMAN with news of N. R. A. activities. The meeting was preceded by a banquet of the vice-presidents of the Association in the McAlpin Hotel, at which details of marking, scoring, and medal awards, as well as questions of general policy were discussed.

In connection with this, a statement by Dr. R. H. Sayre, former president of the Association, and one of the most distinguished living pistol shots, pointing out that anti-firearms legislation had become a menace to national defense, was carried in several New York newspapers and was broadcast by the Hotel McAlpin radio.

The formal meeting in the Armory opened with a review of the past year's activities, and the minutes of the meeting which were approved unanimously.

Capt. W. A. Morrall then announced that the Association had been losing money on its gold and silver medals, because most of the shooters for these high qualification honors had managed to get them with single sets of ten targets. After considerable discussion it was decided that, in the future, shooters who try for gold or silver medals must either purchase targets enough to cover the cost of the medals and shoot such targets or, if they succeed in winning the medal with a fewer number of targets, pay the Association the difference between the cost of the medal and the money they have expended for such targets.

Following the decision on the targets, the election was held, ballots sent to the secretary by mail being counted with those cast by members present.

The result of the election follows:

President: Dr. I. R. Calkins, 299 Central Street, Springfield, Mass.

First Vice-President: A. C. Hurlburt, P. O. Drawer 2098, Hartford, Conn.

Second Vice-President: K. T. Frederick, 128 Broadway, New York City, N. Y.

Third Vice-President: Capt. Herman Thomas, 1348 South 51st Street, Philadelphia, Pa.

Fourth Vice-President: William L. Oxley, 101 Third Street, Portland, Oreg.

Fifth Vice-President: C. W. Schledorn, 2152 Wilson Avenue, Chicago, Ill.

Sixth Vice-President: Col. Roy D. Jones, 573 State Street, Springfield, Ill.

Seventh Vice-President: William W. John, Box 104, Cristobal, Canal Zone.

Eighth Vice-President: George E. Kimball, 1440 Twelfth Avenue, San Francisco, Calif.

Ninth Vice-President: M. B. Peterson, 437 Foote Avenue, Webster Groves, Mo.

Tenth Vice-President: Sam J. Mansfield, P. O. Box 458, Tuscon, Ariz.

Secretary-Treasurer: Capt. W. A. Morrall, Hotel Virginia, Columbus, Ohio.

Dr. Calkins was unable to attend the meeting, being called to perform an emergency operation as he was taking the train for New York. In his absence, Colonel Jones, as first Vice-President before the election, presided.

The principal discussion of the meeting centered on anti-firearms legislation, various remedies being suggested. It finally was expressed as the opinion of the members present that the only effective method to oppose the anti-firearms fanatics was to make legislators acquainted with the views of the Association members and their friends, and to demonstrate the futility of such legislation as a substitute for prompt and swift punishment for crime.

John Dietz, veteran pistol shot and police instructor, remarked that he regarded the automobile as more deadly than the pistol, and more responsible for crime.

"Why not abolish the automobile?" asked Mr. Deitz. "I remember the days before we had it. In those days if you wanted to carry a gun you could stick it in your hat and nobody would bother you. But we didn't have any hold-ups. The boys who might have done them, couldn't get away so fast. It's the automobile that makes the hold-up of today possible. The robbers shoot into a place in their high-powered cars, hold it up—if pistols or revolvers aren't handy they use shotguns or rifles; they could just as well use axes and pitchforks if the gun were abolished and the victim unarmed—grab the swag and beat it before anybody knows what it is all about. And automobiles kill more people every year, accidentally, than are killed by guns, pur-



Dr. I. R. Calkins, President U. S. R. A.

posely and accidentally. Maybe we'd better see about abolishing the automobile after we get the gun abolished."

Instances were cited in which possession of a firearm saved a woman from attack or a home from robbery. These it was decided to bring to the attention of legislators in an effort to curb further fanatical and ill-advised anti-firearms legislation. It was made plain that the Association was not in favor of promiscuous distribution of arms to irresponsible persons, but that it does favor a plan of control that would not work a hardship on the reputable citizen while being impotent against the criminal. It was pointed out that the man who would not hesitate at murder would not be concerned greatly by an anti-firearms law, whereas such a law placed the responsible citizen at the mercy of the criminal. It also was pointed out that even if the manufacture and sale of revolvers were suppressed, crooks would be able to secure firearms sufficiently deadly to meet their requirements, while the decent citizen would be disarmed, and the country would be left without the machinery for turning out weapons for its officers and soldiers in the event of a national emergency.

It was explained that 60 per cent of the troops engaged in the World War were armed with pistols and revolvers.

The final decision was that the shooters should present a united front for their own protection and for the protection of the means of national defense.

Mr. Hurlburt suggested that more publicity linking the shooters of the country and keeping the different organizations informed of one another's activities, would help, and asked the representative of the National Rifle Association who was present if arrangements could be made to carry U. S. R. A. news in its official publication, THE AMERICAN RIFLEMAN, which is issued twice a month, much

more frequently than the U. S. R. A. publication, *The Bulletin*.

The N. R. A. representative said such a proposal had not been contemplated but if the U. S. R. A. wished space for its official news the space would be provided. He added that it would be necessary for the U. S. R. A. to assure the N. R. A. that the news would be supplied regularly twice a month because the space would be reserved and the news could not be handled efficiently as a "now and again" proposition.

Captain Morrall said he was too busy to supply the news regularly, because scoring targets, supplying the needs of the members and getting medals out, in addition to the other duties of his office occupied all of his available time. It then was voted to instruct the president to appoint a publicity committee which would be charged with the work of supplying the N. R. A. with U. S. R. A. news.

Alfred P. Lane, distinguished pistol and revolver shot, called attention to the fact that some clubs which had the use of ranges seven days a week permitted their team members to shoot the U. S. R. A. match scores when they felt in the mood and were "going good." He mentioned the Springfield club, of Springfield, Mass., and the Hamilton club member present explained that the members of that Chicago club followed the Springfield club's practise also. Mr. Lane proposed that matches be shot on specified nights, with the understanding that any man unable to shoot on that particular night announce in advance the night on which he would shoot and do his shooting then. He pointed out that the custom of certain men shooting when they were "going good," placed a handicap on those clubs which had the use of a range on one night a week only.

There was considerable discussion but no action was taken. Mr. Lane also suggested the discontinuance of the limited pistol match, pointing out that it permitted the use of only one make of pistol. Colonel Jones opposed the proposal and no action was taken.

A vote of thanks was passed the 71st regiment for the use of its Armory, and informal discussion closed the meeting.

In this discussion it was made particularly apparent that the members of the U. S. R. A. were ready and willing to co-operate with all the shooting organizations of the country in opposing unfavorable legislation and bringing in new recruits to the shooting field.

The presence of an N. R. A. representative, the offer and acceptance of space in its publication and the attitude of the members, seemed to give a bright outlook for shooting prospects in the coming years. One of the principal difficulties complained of was the provision in many State laws which make the issuance of a permit dependent on the whim of some particular office holder or individual in a police department. It was pointed out that these individuals were frequently inclined to exercise dictatorial powers, or refuse or grant a permit regardless of the standing of the individual. Some police officers, it was pointed out, will not issue permits to any person not known to them personally regardless

of the applicant's qualifications. Others, it was charged, refuse permits under any conditions in spite of permit provisions in the law.

Representatives of the New York clubs reported that the New York police authorities had signified willingness to issue permits to members of the U. S. R. A. provided the responsible local governors of the Association vouches for the men applying.

Colonel Jones reported that the Massachusetts authorities were issuing permits to those persons for whom he personally vouched. This



A. C. Hurlburt, Vice-President U. S. R. A.

arrangement, the members made plain, was regarded as more or less of a makeshift. The consensus was that all State laws passed for the regulation of the use and possession of firearms should have a mandatory provision under which permits should be issued. Such a law would have to provide for the contingencies under which pistol permits might be issued, the qualifications of the persons eligible to possess them, the procedure to be followed in obtaining them and the bonds or fees regarded as necessary in the establishment of the permit system. Then they would make it mandatory on any officer charged with granting permits to grant one when the conditions demanded by the law were fulfilled.

There appeared to be sentiment, too, for some sort of provision under which the permits issued in one State would be honored in another, it being pointed out that under the present system the man with a New York permit who goes armed into a neighboring State is dependent entirely on the courtesy of the police of the strange State. Some have accepted the New York permit without question, while others, it was said, have held up bank and insurance company messengers unable to produce a permit of the State through which they happened to be passing. Consideration for tourists who carried arms for protection also was discussed.

Biography of the Ballard

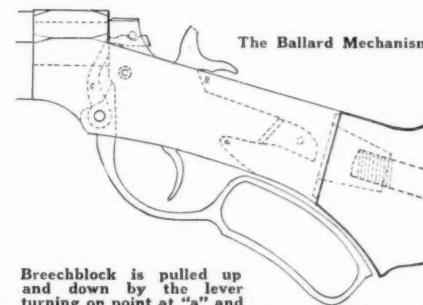
By Hervey Lovell, Charles Hepp, and F. C. Heim

AMERICAN riflemen are gradually dividing into two classes. One class buys every new hi-velocity thing its press agent recommends as a couple of feet

Whether he could hit one after finding it is about as doubtful.

The other class of riflemen just love to fondle anything with sights on it, and can see good points to admire in a fine old flintlock job. They don't give a hoot if the trajectory is as curved as the rainbow if only its projectile will hover mostly in the center of the 10-ring. After leaving its register mark, it may drop on the ground for all they care. These cranks would rather fuss around with lead-kettle, dies, primers, scales, and linseed oil than eat.

Whenever one of the latter clan gets his hands on a Ballard, his eyes take on a far-away look. A gentle, happy smile drifts across his features as he dreams of what he could do with a Pope, Zischang, or Peterson barrel on the old action. The rent man can then count on a delayed payment next month, and probably friend wife goes without a new hat. This kind of shooter knows very well that the ferocious woodchuck is the largest game animal common folks hunt, with perhaps a few days hunting smaller deer such as rabbits down to bullfrogs, and a lead bullet is sure death to such. He may be a .22 lover, or if he likes



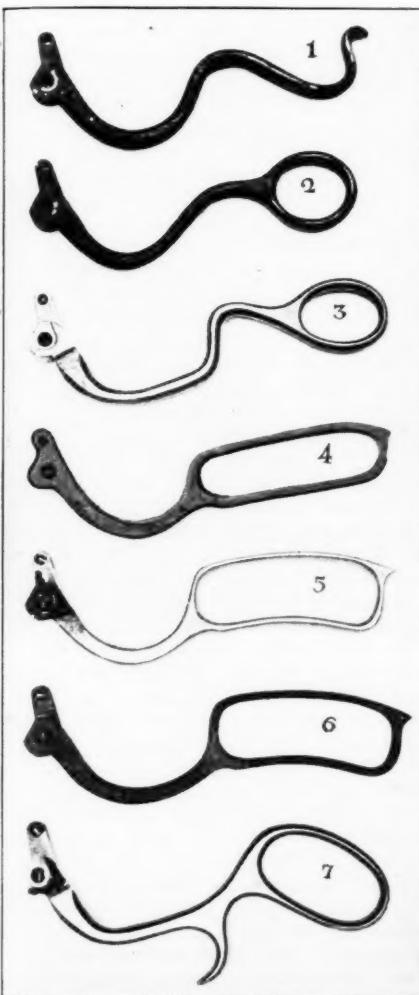
Breechblock is pulled up and down by the lever turning on point at "a" and wedging up in front of shoulder at "b," the angle of rise shoving block forward against cartridge. "c" is extractor.

to reload, a .25 or a .28-30 will be his idea of big artillery combined with the Ballard action.

Some of our dime-a-roar press agents have made scathing remarks about peanut load riflemen and rifles made up by some wizard of rifling cutters, with a lifetime of actual rifle shooting experience back of his handiwork. Low power rifles taught more men and boys to hit an invisible gray object dodging around its muddy hole than all hi-velocity guns ever made. The best snipers came from the small-game hunter class, who learned while yet in short pants to register quick hits on small elusive animals and birds at short range. All this kind of boy needed was instruction as to safety. He could at once comprehend all the mechanism of the military rifles, and use them effectively where they were meant to be used.

Many times I have passed young guardsmen in uniform when I was carrying some Ballard match rifle on the way to a range, and usually

some bird called attention to the "machine gun" or yelled, "Look at the funny gun!" So much for their knowledge of a real rifle. The militiaman who did such remarkable work at



BALLARD LEVERS

No. 1 is a single-trigger lever, Nos. 1½, 2 and 3. No. 2 is bastard lever, similar to the Pacific Ballard, but shorter, and for a single trigger only. No. 3 is Pacific Ballard Lever, No. 5 action. No. 4 is a loop lever for single trigger and for straight grip stock. No. 5 is a loop lever for single trigger and for a pistol grip stock, Union Hill. No. 6 is a loop for double trigger and for a pistol grip stock, No. 6½ action. No. 7 is a ball loop lever for double triggers, for straight or pistol grip stock. Loop is usually filled with a wood ball, checked same as stock and fore-end No. 6 action.

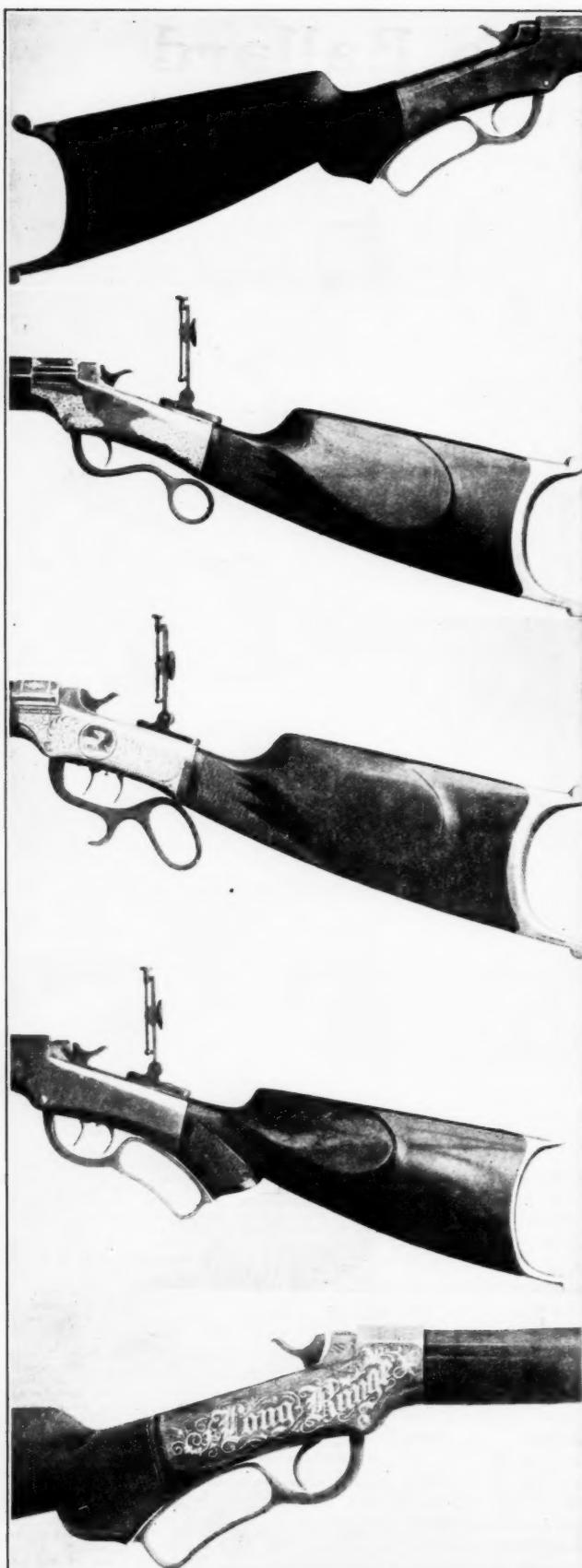
per second faster than the last. A good typewriter and some imagination, backed by a few visionary figures, make these new pieces of mechanism seem the very cream of rifle progress. Each one of this class, with no trip to Africa or Alaska in view, wants this new tear-em-to-pieces gun and won't rest till he gets it, following which the chances are he can't find even a chipmunk to destroy with it.



Upper illustration shows details of the single-trigger Ballard action with all lock parts in place, hammer in safety notch. When the lever is dropped, hammer is drawn back from firing pin allowing pin to back away and clear head of shell and bottom of barrel. As block clears shell head, the extractor starts back and will withdraw any shell that can be put in chamber. This is a very simple lock, as efficient as simple, and one that never wears out in actual use unless metal has been annealed by heat. Actual use will never wear trigger creepy or uneven. This action can be fitted with a vertical set screw, which will regulate the tool to any desired weight.

Middle illustration shows the Ballard double-trigger action used on the Pacific Nos. 6 and 6½ models. This is one of the best examples of American set triggers as it can be adjusted extremely fine and crisp and possesses a long life, as all parts were heat treated very hard.

Lower illustration shows the plain Ballard action as furnished on the Nos. 2, 3 and 4 models for shorter shells. This series had cast receiver and top of receiver concave to clear the low sighting plane; hundreds have been fitted by Peterson for N. R. A. club shooting with .22 cartridge and it is probably the best adapted for such shooting. This model retailed at \$15.00 years ago. Walter Stokes uses this model for his .22 cal. shooting. It has Peterson barrel. Dr. Mann did a lot of his rifle testing and experimental work with these models.



No. 3 F. Ballard fine gallery model (catalogues describe it as follows) .22 cal., full octagon barrel, with pistol grip stock and offhand nickel butt-plate, using same cartridges as No. 3 gallery rifle. "The Offhand" butt-plate exactly fits the shoulder, and the pistol grip gives a firmer hold, so that much better average shooting can be done than with the plain rifle, and both add to the elegance of the appearance. Not made with cheek piece.

The one model with no name in catalogues. Probably a very early model of Schuetzen. Has a heavy Rigby barrel 26 in., round with lug at breech, peculiar ring lever, and stock similar to later No. 6 model; engraving is odd pattern; collectors are invited to name this model for us, also the model that was covered with large oakleaf engraving. Author has one model similar to No. 6½ but is gold inlaid from muzzle to end of frame. Between gold lines is hand engraved in regular 6½ pattern. A gold bird with arrow is on top of barrel at end of forearm.

Catalogue description:
Model No. 6 Schuetzen rifle. Half-octagon barrel, double-set triggers, mid-range Vernier peep and wind-gauge sights, handmade and polished, selected Swiss pattern stock, with cheek piece. Straight grip stock, with ball loop lever, horn tipped forearm. Nickel plated Swiss butt-plate, stock full checked, finely engraved. Using Everlasting or factory ammunition in .32-40; .38-55. Weight 13 to 15 lbs. Designed for German style shooting clubs. We today call this free rifle shooting. This is the model and caliber to learn this very fine game with at 200 yards. Many good shots would be developed by use of these low powers and cheap ammunition.

"The Famous Union Hill" model 10. This is only Ballard entitled to name Union Hill. Has a plain pistol grip frame, pistol grip only half checked (Catalogue description), half-octagon barrel, pistol grip cheek piece. Checkered on grip and forearm. "Off Hand," nickelized butt-plate, double-set triggers and graduated peep and globe sights made in .32-40 and .38-55. No. 9 U. H. was same but had lighter barrels. No. 8 model was single-trigger action. No. 10 was known as "the Schuetzen Junior."

The Long Range action, a favorite in the old Creedmore days.

the Battle of New Orleans may not have been able to keep step or form fours, but he knew his small game rifle from butt to muzzle. He knew all its faults, and he took pride in its few good points. He didn't accept the Army's smooth bore or its ammunition, but made his own. He placed each small bullet where it did the most good, as he had always done when hunting or at shooting matches around settlements in the backwoods.

The kind of rifleman who likes to think himself a part of this nation's defense, and who knows that its safe existence depends on the rank and file of self-trained marksmen, has been the principal user of Ballard rifles.

The Marlin factory discontinued making Ballards a generation ago. About as many Ballards were in use before the War among gun-wise riflemen as all other single-shots combined, although some other makes were still being made at the beginning of the World War. Where there is an effect, there is also a cause, and the authors are trying in this article to explain why the Ballard was and is so popular. We are not boosting any one's factory, as there is no one making or going to make Ballards. The jigs, fixtures, and patterns were destroyed years ago, more's the pity.

The Ballard action was patented in 1861, along with hundreds of other breech-loading carbines which their fond inventors expected to market to a war-ridden nation. It was simple and strong with its few husky working parts proof against rust and dirt. That feature made it reliable, rain or shine. The original was of exactly the same shape and design as the rebuilt rifles lately become so popular. The first model had a hook for the finger out on the fore-end. Pulling back on the hook pushed the fired case out of the chamber. It was designed for a rim-fire cartridge, and was built with the breechblock split, to provide space for the striker, which was an integral part of the hammer. Later the design of the breechblock was changed to accommodate a separate firing pin, both in the rim and center-fire calibers.

The idea of making the breechblock hollow to contain the entire lock mechanism, nearly water and dirt tight, is the feature that appeals to me most. Making the block and parts glass-hard on the surface preserved thousands of actions for future rifle lovers to rebarrel time after time with the most accurate handmade barrels ever produced by master mechanics. The worst point was the soft carbon steels used in the barrels. The late era of poison primers and dense powders put many a fine barrel on the scrap heap, but the polish such men as Pope put into the tubes preserved them for sometimes hundreds of thousands of shots delivered with extreme accuracy.

One reason for the accuracy obtained with these actions was the method of wedging the block against the base of the cartridge, every time alike. If the rim was too thick, or deformed, the extra thickness got swaged off as the block came up across its face. The primer was shoved in the clear, and to the bottom of the pocket if left too far out. The o'd Sharps type block, working at right angles in grooves,

couldn't be operated if tight against the breech, as it is impossible to slide any object that exactly fits into a square hole, or one with parallel sides, past a rigid obstruction like the cartridge head. Clearance must be allowed for, and often this fault causes small, sensitive cartridges to string their bullets up and down the target. Another feature of the Ballard was the smooth, easy opening and closing, even though it deformed the head of the cartridge to seat it.

The outstanding feature prized by offhand shooters was the quick lock-time. The light hammer, with short throw, gave a score of fine ring targets several points higher than an equally good barrel, load and marksman using a heavy, slow and complicated lock. As the sight swung across the target or reversed and swung back, the shooter could pull and depend upon landing somewhere near his objective.

The stiff, short spring, the trigger, and the hammer were the only working parts, and they moved with a smooth, swift, and positive action, which was exactly alike each time. Given proper co-ordination of eye and trigger finger, the Ballard action made higher scores possible. Other actions could be remodelled to give nearly as good results, but the Ballards all had this quality from the \$15 grade up to the finest output of the Marlin shops.

The European marksman developed a drop-block rifle with hammer contained in the block, which had the good points of the Ballard, would stand any hi-power load made, and gave still higher lock-time speed. Many shooters think that the Martini action as developed by the Swiss is the fastest lock, but when dissected it is easily seen to be of a slower construction than the hammerless drop-block type, and more complicated.

A rifleman ought to be able to see in what condition the barrel is near the breech where corrosion starts. If he has to get out tools and tear the rifle down to do it, he doesn't look often enough. As a result, the rifle will almost inevitably suffer. The Staheli Martini can be examined and cleaned, though only after the block and rear sights are removed. The Swiss Martini can't be seen through at all from the rear. In later years some have objected to the Ballard actions as not strong enough when extra hi-power smokeless loads were used. They didn't break up, or endanger life, but just shook loose gradually. This may be a blessing in disguise, as it will prevent a few hi-power nuts from turning service bullets loose in closely settled districts. One of the authors actually knew two men to use a hi-power bolt-action rifle, full charges and all, on a camping vacation for squirrels. Not even a chuck lived in that country. They shot at crows, snakes, and frogs, with a rifle having a danger zone of a mile. This is the kind of fool who brings careful riflemen into disrepute. Far better to stick to 1500-foot velocity loads, or less, and learn to shoot accurately, instead of turning loose a dangerous hail of long range bullets in the vague hope of connecting now and then with target or game. Careful shooters will find that the Ballard action is ideal for this kind of shooting, using shells loaded

No. 6½ set triggers and Rigby barrels. This English barrel-maker supplied Marlin Co. with its factory barrels in this model, always with lug engraved with word "Ballard." These slightly tapered 30-inch barrels were designed with symmetrical lines and to stay under total weight of ten pounds with Vernier peep, iron sights to comply with Mass. Ass't rules. They were shot in hunting offhand position, no palm rest or sling. Where has a factory ever catered to riflemen's ideas of beauty and efficiency as Marlin did in this model?

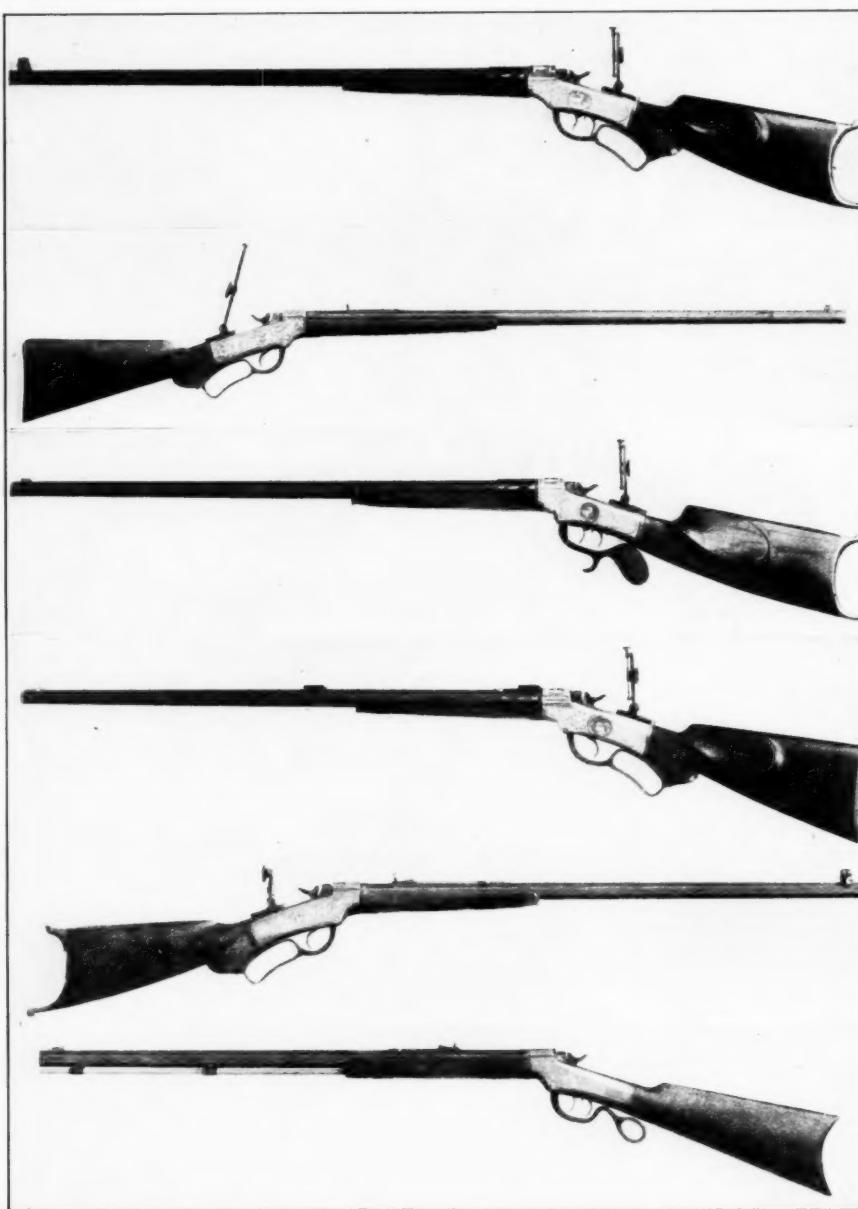
Shotgun butt 6½ model close up. Just suppose we had a factory today which would give us such a variety of stocks to select from.

Close up Mid-Range model. Another one made prior to 1880 and not in catalogues of that period. Who owns a catalogue showing Mid and Long Range models?

The "Pacific" No. 5 rifle. As its name indicates, this action was the favorite on the Pacific Coast. This was "the" hunting rifle of the West in general, being the favorite of the hunters of buffalo, elk, deer, bear, and other big game. It was furnished in .38-55, .40-63, .40-85, .44-40 Winchester, .45-70, .45-100. In the '80's on the Pacific Coast a man needed nothing better than this model in .45-70 caliber, 100 shells, bullet mold, and loading tool.

No. 6½ with No. 7 ball lever and stock with regular 6½ Rigby barrel and butt-plate.





No. 6½ as turned out at Marlin factory, the best handling rifle I ever put to my shoulder. Words fail to describe the perfect balance and lines or the beauty of wood and engraving. This pattern in single trigger comes under N. R. A. rules, gives long sight radius, crisp trigger pull, and is reliable rain or shine.

Long Range model shotgun butt, low comb standard equipment with 34-inch half-octagon barrel, hooded windage front and long range Vernier peep, also buck horn open rear sight. Rifle serial number 778. Marked J. Marlin, New Haven, Conn., U. S. A. .40-70 was favorite caliber at Creedmore range. This rifle made prior to 1880, not in catalogues after that date. Our photographer's foot slipped when he assembled this outfit and he put the sight in the wrong place. This long sight shown here on the tang should have been put on the heel of the butt, whereupon we lay down on our back and fired with the good old Texas grip or some other of the old-time back positions. The front sight contains a spirit level.

The 6½ with straight grip stock ball and spur lever usually seen on No. 6 Schuetzen models, but has 6½ butt-plate, called by Marlin the offhand butt-plate. Rigby barrel is also standard 6½ with lugs at breech.

No. 6½ with shotgun butt-plate, otherwise the same as regular 6½. This is author's idea of a beautiful rifle combined with efficiency and strength, which is true definition of beauty. If ordinary photo plate could show color value, the beautiful figured wood might turn some gun bug green with envy.

The Mid-Range rifle, left side engraved, A1 same as long range models. This specimen equipped with Pope's wind-gauge peep. Absence of cheek piece and low comb adapted this and long range model to prone shooting. Octagon barrels were standard equipment.

Pacific Ballard No. 5, as issued, without any changes, 32 and 30-inch full octagon barrel. Double set triggers, extra heavy wrought steel frame. Straight grip, plain stock, steel rifle butt-plate, very popular at that date, cleaning rod in thimbles under barrel. Rocky Mountain sights, one finger loop lever, using Everlasting shells or factory loads.

full of Schuetzen, du Pont No. 1 or the equivalent in No. 80, or Unique powders, with soft point or cast lead bullets.

I am not selling or boasting sales of Ballard rifles. Contrary to all boasting dope I am buying and looking for more specimens of this action to buy. When I get through I intend to have every model of Ballard action made, including six types of engraved actions with all the fine fittings included. There will be a specimen of each famous barrel-maker's work—Farrow, Pott, Schoyen, Pope, Zischang, Peterson, Tobias, Fillinghurst, and Rigby, the English maker of Ballard factory barrels with engraved lugs at breech, seen on all No. 6½ Ballards. When I get too old to shoot I will tinker with this collection and dream of the days when rifles were things of beauty and precision—not merely tools for slaughter.

To him who can find a fine Ballard I offer

greetings, the same as we usually offer the newly wedded, or the parents of a new heir. What to do with it depends on what he wants to shoot at most of the time.

The single-trigger models should be rebarreled to weigh under ten pounds on the hoof. Double-trigger models only are admitted to select company, such as free-rifle or match-rifle class, and should weigh from twelve to fourteen pounds, with barrels not under twenty-eight inches long. No. 3 size would weigh twelve pounds in that length. Of all the barrel-makers that made gilt-edge twenty-twos, only two remain active,—Pope and Peterson. Take your choice. But not many folks can now obtain Pope barrels, while Peterson is giving quick, courteous service every year, and in our neck of the woods is best represented.

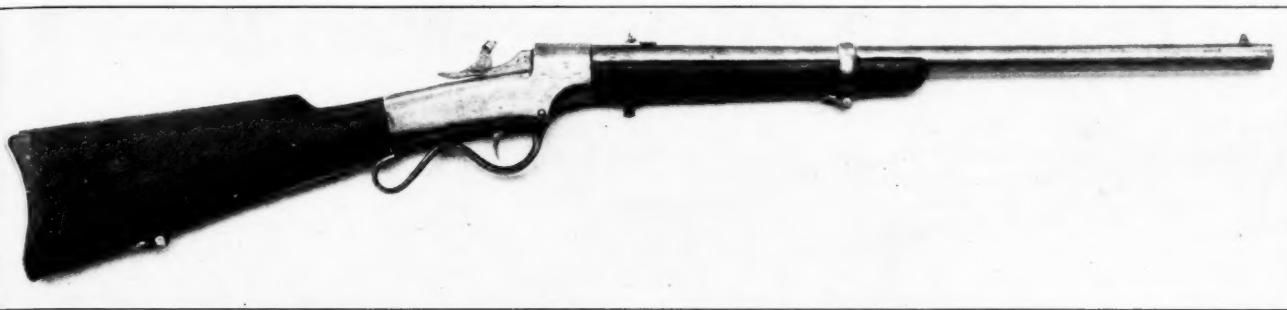
And now we will describe somewhat the va-

rious Ballard models as listed in the Catalogue of 1888. The models were numbered from 2 to 10, though we do not know of any Model 7.

Nos. 2, 3, and 4, were very much alike in outline and general appearance, viz., plain stock and rifle butt-plate, octagon barrels from 24 to 30 inches in length, and weight from 7 to 8½ pounds for the 30-inch. There were no pistol grips in the plain models. Nos. 2 and 3 had cast receivers, and were not intended for heavy cartridges.

No. 2 was called Sporting Rifle, chambered and rifled for .32 and .38 long cartridges in both rim and center-fire, the arm being fitted with a reversible firing pin. It could also be chambered for .32-20 W. C. F.

No. 3 was known as the Gallery Rifle. It was a .22 caliber rim-fire, using short and long rifle cartridges, and was also chambered



The First Ballard. The Carbine as Used in the Civil War.

for the 22-13-45 center-fire on special orders. No. 3 F—Known as the Fine Gallery Rifle—was similar to No. 3 in some respects, but was fitted with pistol grip frame, and a pistol grip stock, that had a higher comb than the plain model. The butt-plate was of the Swiss pattern, or what the Ballard people termed "Off Hand" butt-plate. The stock on this rifle closely resembles the Union Hill Model stock, but without cheek piece.

No. 4—Perfection Rifle. This model is listed as being made up with extra heavy wrought frame, and 30-inch octagon barrel, 9½ pounds weight, and chambered to use .32-40, .38-55, and .40-63 Everlasting shells.

From No. 4 up to No. 10 all receivers were made of heavy wrought steel.

No. 5—Pacific Rifle. This famous model was made up with a plain stock, having straight grip and rifle butt-plate, and an octagon barrel fitted with thimbles for a wooden cleaning rod, and double-set triggers. The barrels were 30 and 32 inches in length, and about No. 3 size, giving weight up to 11½ pounds. This rifle was very well known as a hunting rifle for big game in the West. The calibers were .32-40, .38-55, .40-63, .45-70, and .45-100, the latter being a buffalo hunter's weapon. Many an old Pacific has been made over into a fine Schuetzen rifle, and now these old actions are more in demand than ever for rebuilding into .22 caliber rifles of the "free rifle" class.

Nos. 8, 9, and 10 are models known as the U. H. or Union Hill Models. No. 8 U. H. had single trigger. No. 9 U. H. had double triggers. No. 10 U. H. had heavier barrel and double triggers, and was known as the Schuetzen Junior.

The Union Hill models were made with pistol grip frame, pistol grip stock with cheek piece and nickelized "Off Hand" butt-plate. The stocks were usually checkered (but not always). The barrels were half octagon, 20 to 30 inches long, and on Schuetzen Junior Model up to 32 inches. The frames on the U. H. models were plain. The most popular cartridges for these rifles were .32-40 and .38-55.

No. 8 was designed to meet the demand for a 200-yard match rifle conforming to the rules of the Massachusetts Rifle Association, which stipulated that rifles should have 3-pound trigger pull and be not over 10 pounds in weight. So the rifle was made up to weigh approximately 9¾ pounds.

The finer sister to the Union Hill Models was the famous No. 6½, with its finely engraved frame, beautiful pistol grip stock, and

Rigby barrel. This model was one of the finest and most popular match rifles for offhand target shooting at 200 yards ever made in America. Some of these stocks have the most beautiful figured walnut that one could wish. They usually made these stocks after a standard pattern, but occasionally one finds a No. 6½ stock with a higher comb than standard.

The engraving on the frames was of beautiful design, with a circular centerpiece as large as the frame would permit, the central design containing a running deer, standing deer, elk, grizzly bear, or occasionally a buffal'o.

Sometimes these rifles must have been made up to special order, as one of my No. 6½ has a three-letter monogram H. O. D. in place of the usual design. I often wonder who H. O. D. was and if he is still living. If he is, I'd like to tell him how his old No. 6½ is serving me faithfully in conjunction with a .22-cal. Peterson barrel.

The Swiss or "Off Hand" butt-plates on these model's 8, 9, 10, and 6½, were designed by W. Milton Farrow, who in his earlier life was a master mechanic in the Ballard works. No other Swiss butt-plate appeals to my eye as does this one. It gives the rifle a symmetrical appearance not found among old competitors.

No. 6—Schuetzen Rifle. This model was made to meet the demand for a heavy double trigger by the members of the various German-American Schuetzen clubs. It had the engraved pistol grip frame of the No. 6½, but it differed from the No. 6½ in weight and in the shape and size of the stock. The weight was approximately 15 pounds, and the stock was made without pistol grip. The comb was a trifle higher than in No. 6½ model, and the butt-plate was of heavy Swiss pattern. The lever was also a departure, and was made with a finger spur and loop for handgrip bent down away from stock.

The following is a description of the Ballard Rifles, described in their 1883 Catalogue:

No. 1½ "Hunters Rifle"—Round barrel, single trigger, extra heavy straight grip, wrought frame, plain straight grip stock and fore-end, not checkered, iron rifle butt-plate, Rocky Mountain sight, barrels from 28 to 32 inches in length. Weight from 9 to 10 pounds. Cal. .45-70 and .40-63.

No. 4½ A1 "Mid-Range Rifle"—30-inch, half-octagon barrel, fine English walnut stock, pistol grip and fore-end, full checkered, single trigger, loop lever, mid-range Vernier peep, and wind-gauge sights, finely engraved frame, rubber shotgun butt-plate. Weight 10 lbs.

No. 7 A1 "Long Range Rifle"—34-inch, Rigby barrel, also made in half-octagon, extra handsome English walnut stock, full checkered pistol grip and fore-end, finely engraved frame, rubber shotgun butt, single trigger, loop lever, long range Vernier peep and wind-gauge sight with spirit level and three discs. Morocco sight case. Cal. .45-100. Weight 10 pounds.

No. 5½ "Montana Rifle"—Same style as No. 5, but extra heavy for hunting the largest game. Uses the Sharps .45-2 7-8 cartridges. 30 and 32 inches long. Weight 14 pounds. Rifle or shotgun butt.

Rifles Nos. 1½, 2, 3, and 4 are illustrated with having a different style of lever which is of a different shape from any I have ever seen on any Ballard rifle. I thought I had a Ballard lever of every pattern but I find I have not.

Such is the "Old Ballard," beloved by the target shooting crank in the old black-powder days, and now in as much demand as ever. A friend, also a shooting crank, once asked me, "Why do you like the Ballard so well?"

I tried to point out its merits as I saw them. Now he himself is a Ballard convert, having acquired perhaps a dozen Ballards of various models. Among the many points of excellence one could name the following: The shape and weight of frame adapts itself to any reasonably sized barrel. The material is good. The stock fastening, a bolt the full length of stock, takes up all looseness at this point, so fatal to accuracy. The lock work is inclosed in a block that may be easily removed and taken apart for cleaning or overhauling the lock work. Ballard-set triggers are superior to all other patterns, as they can be set to the finest touch and yet be perfectly safe.

This article is written in the hope that popular demand and united action by shooters will convince some enterprising factory of the need, and lead it to put at least the pistol grip frame models on the market without changing a single one of the features which proved so useful and practical. We don't want any pot metal monstrosity, nor sheet iron junk, nor imitations of a military stock and sights. Factory designers sit up nights trying to adapt a rifle form to cheaper machine production. Ballards were machine made, but they look like a rifle instead of a club or a boat oar.

Mr. Hepp, Mr. Heim, and I offer this letter to the rifleman's greatest friend, THE AMERICAN RIFLEMAN, hoping it will help us to get our favorite rifle manufactured again for younger shooters.

The 270 Winchester on Deer

By Byron E. Cottrell

WHEN this cartridge first came out I considered it as just the .30-06 necked down to .27 caliber and thought no more about it. But I wanted one of the new rifles, and as I already had a .30-06, I decided to get a 270. Anyway, I have always favored a small bore rifle for my use. I use it as much for shooting small game with reduced loads as I do with full charge loads, and the most of the latter are used on wood-chucks in a farming country where I want a rather light bullet at high speed. For years the .250-3000 has been my favorite, but I had rather have something a little more powerful for our deer. So the 270 was the logical choice.

While we are speaking of deer, I want to say that there is nothing logical about our deer,—that is, there is nothing logical about killing them. Some of them will be killed dead with a shot in a non-vital part with a small rifle, and the rest of 'em refuse to be killed with the most powerful bullets in the vitals.

The second deer killed by our party this fall was killed with two shots, and as the last one broke its neck, it stopped. The next deer was killed by Smith. We were still hunting in sight of each other, and Smith motioned me and pointed out a nice buck feeding some 150 or 175 yards away. Smith shot this deer high in the shoulders with a 180-gr. Western O. P. bullet. The deer dropped from our sight, and when we got to it, it didn't look as if it had moved after it hit the ground. But the funny thing about this killing was the fact that the bullet did not go through. It would have had to penetrate less than six inches, but there was no sign of a bullet on the opposite side. This bullet should have shot through a deer from end to end, but it wouldn't shoot through six inches of Pennsylvania venison!

I got a chance to try the 270 on deer at about 300 yards. The bullet struck in the middle of the shoulder, went straight through and out the same place on the other side, making a hole that I could put my two fists into. The deer pitched forward and slid down the side hill some twenty or thirty feet, and lodged behind a log. After it quit kicking and I had good reason to believe that it was dead, it got up and ran some 600 or 800 yards and dropped when another hunter was shooting at it! That 270 bullet made the largest hole I ever saw put through a deer. It struck in two pieces, in the snow beyond, and these had force enough to go into the leaves where we could not find them. One fellow picked up a piece of deerskin the bullet had knocked off when it came out, that was about two inches across. An old hunter said he never saw so much blood where a deer had been killed unless it had been gutted right there. The party that got this deer said that one lung was practically all shot out—yet after

this deer got straightened up it ran as well as any.

Another thing I want to say is about deer bleeding. The deer described did not bleed outwardly at all after it got on its feet. For the first 200 or 300 yards there was blood that came off its hair, but then there was no more blood. All the deer I have ever seen that were shot through the shoulders or just back of them, never bled any as long as they were on their feet. They bled inside. So I can't see as it makes so much difference whether a bullet goes through or not, as it has been my experience that unless deer are shot low down or in the legs they will not leave a blood trail. And if a deer is shot in the legs or hip, a blood trail isn't of much value anyway, as it will generally be a mighty long trail. If this is always true, then it doesn't make much difference whether the caliber of the rifle is 25 or 45.

A fellow from a camp near us hit a doe while shooting at a buck. His rifle was a Model '95 Winchester .30-06, using Western O. P. ammunition, of 150-gr. weight I think. The doe was hit through the shoulders, the bullet going right through without opening at all. A game warden who was called to the scene thought a full-jacketed bullet had been used. The distance from the shooter to the deer was 300 or 400 yards. I have seen many expanding bullets go through small game at long range without opening. That was nothing. But the queer part of this was that the doe was killed *instantly*, while the buck shot with the 270 which expanded so well was far from being killed on the spot. There is a lot of difference in the individual animal. And you can never tell what any bullet is going to do—till the shooting is over.

Well, we will quit hunting and get back to the 270. There is one point where this rifle has it over the most of 'em. It will throw a bullet of greater sectional density just a little faster than any other standard rifle that I know of. The standard bullet of 130-grs. is of the same proportionate weight as a .30-cal. 178-gr., or for all practical purposes say a 180 .30-cal. I read somewhere, I believe it was in *Outdoor Recreation*, where one authority stated that the 130-gr. 270 was proportionate to a 160-gr. .30-cal. This is a mistake, likely typographically. Similar solids are to each other as the cube of their corresponding dimensions. That is, a 130-gr. 270-cal. is to a X-gr. .30-cal. bullet as 27³ is to 30³. If you go to the trouble to work it out, you will find the .30-cal. will weigh 178 grains.

Driving a 180-gr. .30-cal. bullet 3160 f.s. would be quite a feat. Even the new .300 Magnum falls short by 300 f.s. Yet the 270 Winchester does this with pressures that are perfectly normal. The Western Tool & Copper Works also put out a 145-gr. bullet for the 270. This equals in sectional density a

198-gr. .30-cal. I believe the right powder will give the 145-gr. bullet around 3000 f.s. in the 270. Comparing again with the 200-gr. load in the .300 Magnum, this is better than 300 f.s. in favor of the 270.

The 270 is nearly duplicated by the .275 Magnum and the 280 Ross, but neither of these rifles can be obtained today in Mauser action for much under \$200. If you want a real Magnum of medium power at a reasonable price, I don't know where you can do better than to get a 270 Winchester. I have shot mine less than one hundred times, but I am convinced that it is as accurate as any sporting rifle that I ever shot.

The barrel is of good weight for a sporting rifle the same outside diameter as the same rifle chambered for the .30-06. When using reduced loads, it requires the least sight adjustment of any rifle I ever tried reduced loads in, only five minutes elevation, and with some loads no wind-gauge, and with others a half-minute. And a half-minute of angle is so little that it might have been due to light conditions or wind.

If some ammunition company wants to put out Hi-Speed loads for the 270, an 80-gr. bullet will duplicate the 110-gr. .30-cal. The .300 Magnum uses a 120-gr. bullet for its high speed load. To compare with this, the 270 bullet would have to weigh 87 grains, and as the .300 Magnum gives a velocity of 3600 f.s., we could look for 4000 f.s. in the 270.

The rifle itself has been so well described that there is no use saying more about that. I have removed the varnish from my stock and given it an oil finish, and it is as pretty an American walnut stock as I ever saw. Most writers say the front sight is a little too low to use with the Lyman 48 and sight in at 100 yards. I found mine too high, and also that of another rifle of .30-06 cal. Both rifles shot about eight inches low at 100 yards. Likely the Winchester Company sought to correct the low front sight, and overdid it a little. Both these rifles when used with the open rear sight required the bead to be held above the top of sight bar to hit where held at 100 yards. The owner of the .30-06 missed his buck because of this, but that was his own fault, as he should have known where his rifle was shooting.

Now a few words about reloading. For reduced loads Belding and Mull furnish molds for a plain base pointed bullet, which they designate as weighing 11 grains; however, the ones I use are cast a little softer and weigh 115 grains. As it comes from the molds it measures .2795" in the two base bands, and the forward portion is .273". The length is .888". I have used powder charges as light as 6 grains du Pont Shot Gun Smokeless and Gallery No. 75, and with Sporting No. 80 have used from 8 to 12 grains. The latter is about the limit for a plain (*Concluded on page 22*)

Lugers—and Lugers

Part II

By J. V. K. Wagar

The two Luger cartridges, the 7.65 (.30 Luger) and 9 mm., are known chiefly for their high velocities and good penetrations. For the purpose of giving their salient characteristics in the simplest manner, and in order to compare them with other well-known cartridges, I have grafted the material in the following table from many different sources:

Cartridge	Bullet Diameter in Inches	Bullet Weight grains	Length of Barreled	Muzzle Velocity ft. lbs.	Muzzle Energy ft. lbs.	Penetration in in. of wood
7.65 mm. Luger	.309	93	4	1180	290	10
9 mm. Luger	.354	125	4	1014	284	10
			8	1210	400	11
.38 S. & W. Spl.	.358	158	6	857	258	7
.38 Auto Colt	.358	130	6	1174	399	10
.45 Auto Colt	.450	200	5	910	368	8

Of the two Luger cartridges, the 7.65 mm. has the greater accuracy, largely because of its better-proportioned bullet and reduced recoil; but the difference in accuracy is so slight that for all practical purposes it can be forgotten.

The report of these two cartridges, in common with their recoil, is light but quite sharp. Indoors, the reports of the .44-40 and .45 Colt, although heavier, do not cause ear ringing as frequently as the reports of the two Luger cartridges. Outdoors, neither of the Luger cartridges is at all bothersome.

Bullets for the 7.65 mm. Luger are made with rounded soft points, rounded full metal-jacketed points, and with full metal jackets having either hollow points or small flat tips. Of these, the rounded, soft-pointed bullets will expand quite satisfactorily on wood or on heavy game, but the other types are not at all reliable in their expansion.

The 9 mm. Luger cartridges are loaded with hollow-pointed or solid full metal-patched bullets having an outline very similar to the regular .38 S. & W. Spl. bullets, and with full metal-patched bullets having truly conical points, with straight sides, terminating in small hollow points or in small, flat tips. None of the 9 mm. Luger bullets have ever expanded satisfactorily for me either in wood or in heavy meat, because of the rather rigid reinforcing of the metal jackets.

I have found the 9 mm. Luger bullet with the truly conical point—a frustum of a cone, to be exact—to be the best penetrating pistol bullet made and used extensively in this country, for the reason that it alone has a small, well-reinforced point and straight tapered sides. Just as a badly worn ax with a blunted edge and too much cheek cannot get started into tough wood, neither can more rounded bullets than those of the 9 mm. Luger always get started straight in tough wood, tissue, or bone. The .38 Automatic Colt bullets, to cite one example, have every bit as

much penetration as the 9 mm. Luger bullets, once they have started, but I have had .38 and .45 Automatic Colt bullets bounce off hard pine and larch knots and thin steel plates because of their inability to get started.

The 9 mm. Luger cartridge was formerly the less popular of the two Luger cartridges, but it now seems to be the more popular, because, while it costs but little or no more, has little more recoil, damages small game very little more, and has practically the same accuracy, it is a much better cartridge for defense, whether against man or beast.

Some truly remarkable kills have been made with the Lugers. I, personally, know of incidents in which mountain sheep, deer, moose, elk, and bear, both black and grizzly, have been killed. And I know of one man, whose chief business in life was to trap cattle-killing bear, who used no other gun for finishing off his trapped bear than a 9 mm. Luger.

It is penetration which makes these two cartridges good killers, among sidearm cartridges, on such game. The Luger bullets are small in caliber, light in weight, and have not sufficient velocity to give any killing effect, but they get through to vital organs much better than do ordinary pistol and revolver bullets. It is a shame and a disgrace to use either of the Luger cartridges on such game as I have listed whenever a better arm can be employed, for much game has been and will be lost through such practice; but if one's life is endangered by starvation or by the attack of a vicious beast, and if a slower heavier bullet with greater cross-sectional area would not as surely reach important organs, a Luger, preferably in the 9 mm., is the thing—if one must depend on a sidearm.

Considerably more pressure is developed in the firing of Luger cartridges than in our most common revolver cartridges, but the shells are of good thickness, are well supported during firing, and can be reloaded many times. The 7.65 mm. Luger shells need occasional resizing because of their bottle-neck construction, but the 9 mm. shells can often be completely worn out without ever being resized. Reloading is particularly desirable with these cartridges because of the rather high prices asked for factory-made ammunition.

The Ideal people formerly made molds for an excellent 89-grain bullet, No. 308244, for the 7.65 mm. Luger, and furnished their No. 10 tool for seating it. This bullet gave excellent accuracy when loaded to a velocity slightly below that of factory loads, and which did not fully operate the action, and fairly good accuracy when loaded so that it made the pistol shooting it function automatically.

Molds and reloading tools have never been made for the 9 mm. Luger cartridge, but the Ideal 125-grain bullet, No. 358242, for the .38 Colt Automatic cartridge, works quite well

when loaded with insufficient powder to operate the action, and can be seated in practically any double adjustable tool for the .38 Colt Automatic or .38 S. & W. Spl. cartridges. This bullet, however, because of its two lubricating grooves, is best seated with a part of the first groove ahead of the shell.

Just recently rather well-confirmed rumors are about the country to the effect that a very reliable firm, long popular with sportsmen, is about to introduce a very large part of the old Ideal line to the market. This is good news, particularly to those owners of Luger pistols desiring either of the bullets just described.

A local gunsmith and I experimented at length with the problem of reloading the 9 mm. Luger, and described our results in the March 1, 1925, AMERICAN RIFLEMAN, under the heading of "Reloading the 9 mm. Luger." Here we found that even a more satisfactory bullet than the Ideal .38 A. C. P., No. 358242, existed in the old Ideal .38 S. & W. bullet having only one lubricating groove. This bullet gave the very best accuracy, even when loaded in front of enough powder to fully operate the action, because of its greater weight and its ability to resist deformity during firing.

The .38 S. & W. bullets have one drawback—they are so long that not every magazine will accommodate the cartridges loaded with them, although any Luger magazine will hold at least one of these on top of several factory cartridges. And some magazines will hold six or seven cartridges reloaded with this bullet, providing the throats are not too tight and the bodies of the magazines are not too narrow.

While I doubt if all our makers of reloading tools could profit by its manufacture, I believe that it would be worth while for one of them to bring out a new bullet especially for the 9 mm. Luger. According to my experience, it should be of about 135 grains weight, should have a single broad lubricating groove, a wide, strong base band, a very wide strong front band, and overall length of sufficient shortness so that reloaded cartridges would function freely in the magazine, and a truly conical point permitting the bottom of the breechblock to slide over the bullets of the top cartridge in the magazine without peeling it. The bullet would need no crimping groove, but should be seated friction tight.

In the March 1 number I stated that the .38 Automatic Colt bullet was a little large for the 9 mm. Luger, leading the reader to surmise that it was dangerously so; but the chief difficulty in its use, at least in my experience with it several years before, had been to enter the bullets into the cases, although I had broken a 1917 Luger receiver when firing this bullet in that pistol. Later, however, I found that some factory metal-cased bullets ran almost as large, having far

more barrel resistance, and that the breakage was due to poor metal in the receiver.

In general, it is very safe to conclude that a cast bullet from one to three-thousandths of an inch oversize gives very good accuracy in an automatic pistol, and no dangerously increased pressures, unless the bullets are very hard and an excessive powder charge is used. In revolvers, on the other hand, oversized bullets are dangerous, especially if they are of very soft metal.

Bull's-eye, du Pont No. 80, and du Pont No. 5 are the best powders for reloading the two Luger cartridges and with them one should start with charges well below the standard and work up, quitting before or when the action is functioned perfectly, depending upon accuracy. Since the tensions of Luger recoil springs vary somewhat, even in the same caliber, I have not included powder charges here, believing that it is better to find the best charge for each particular pistol.

Bull's-eye should be carefully weighed on accurate balances or should be carefully measured out in very small, thin metal powder cups cut down until they hold no more than the proper amount of powder as weighed out on the balances.

The average reloader with the average Luger pistol will do well not to exceed $3\frac{1}{2}$ grains (weight) of Bull's-eye in the 7.65 mm. Luger, or 4 grains (weight) in the 9 mm. With No. 80 and No. 5 there is less danger of an overcharge, and an accurate Ideal or Modern-Bond powder measure checked with a pair of balances will measure the charges with sufficient accuracy. In my various Lugers I have found the best charge of No. 80 to be somewhere between 4.8 and 5.8 grains (weight). I have never had remarkable success with No. 5 powder, although others have had very good luck with it, but have found that the maximum allowable charges for it should be slightly less than those for No. 80 powder, in the Luger cartridges at least.

And now this tale must assume a funereal air, for Lugers are not what they used to be. There is little need for me to dwell upon the pre-War Lugers, for I am challenging no one when I say that in material and workmanship, and in durability, they had no superiors among automatic arms. In accuracy and reliability they were, perhaps, slightly inferior to the best of our own American arms, although many Luger enthusiasts will readily question this statement.

When Germany started the World War in 1914 she was, of course, equipped with pre-War Lugers. To my knowledge, only a few Lugers were made in 1914 and stamped with 1914 on the breech, and these, too, were quite equal to the pre-War standards.

The Lugers made in 1915 were all stamped with the figures 1915 on the breech. I have used and owned about twenty 1915 Lugers, and all of them were good pistols. The material, I should say, is quite the equal of that in pre-War guns, although in a few of them some carelessness of manufacture is shown. They are not the equal of pre-War pistols, but they are superior to the pistols made in the fol-

lowing years of the War, and are far better than post-War pistols.

The real let-down in the standards of material and manufacture became evident in 1916, and became gradually worse in 1917 and 1918. Up until 1916, Luger pistols had always been made by the *Deutsche Waffen und Munition Fabriken* whose trade-mark, DWM, forms the scroll monogram appearing on the top of the forward link of a genuine Luger action. But in the last years of the War, other firms in Germany made Luger pistols, stamping them with their own names, or with the names of the city in which they were made, although most of the Lugers still appeared with the regular DWM.

Most 1914 and 1915 Lugers are practically as good as pre-War Lugers, and can be sold on practically the same basis, making allowances for the differences of mechanical perfection and condition. But the 1916, 1917, and 1918 Lugers are not pre-War Lugers or in any way equal to them, although dealers who sell them, and private individuals stuck with them, will often claim as much. Some 1916, 1917, and 1918 Lugers do function well and are accurate, but the wearing parts sometimes batter down after a surprisingly small amount of use. The workmanship and finish can not be compared with that on pre-War pistols, and I have seen receivers broken on several pistols of each year's manufacture.

The end of the World War found the American public eager to buy Luger pistols, and importers were not slow to take advantage of this condition. The first Lugers came and were eagerly bought at prices ranging from \$27.50 to \$35. until the public began to realize that it was buying nothing but junk; then the prices on those very same Lugers went down, down, down to even lower than \$12 apiece—and still the dealers got in fresh supplies and sold them.

I'm not trying to make any nasty insinuations or to place the blame upon any particular persons, for I am not extremely well posted on the importations of foreign goods, but several things are very clear: (1) It is not the public's fault that post-War Lugers are worthless, for I have known many men to pay from \$50 to \$75 for good pre-war Lugers before Germany began her shipments of post-War pistols. The public is willing to pay any reasonable price for Lugers which are assuredly good. (2) Post-War Lugers have been sold for less and less money—for less than they were sold for before the War—simply because they are so worthless that more money can not be asked for them. (3) If the very same Lugers which first sold for \$27.50 were later sold for from \$12 to \$15—and they were and are all equally rotten—and the dealers and importers could still make a profit on them, then some one had a throathold on the manufacturers, as far as American importations are concerned, for other countries have been getting excellent Lugers ever since the War.

Before the War, Luger pistols sold for a few dollars more than the prices asked for the Colt .45 and .38 Automatic Pistols, the most expensive of our domestic pistols. This ratio

of prices still holds, for good Lugers, of practical pre-War standards of material and workmanship, can be purchased in this country for a little more than one must now pay for the same Colt pistols—providing one gets his Luger pistols by special order through reliable firms, by way of England or Switzerland.

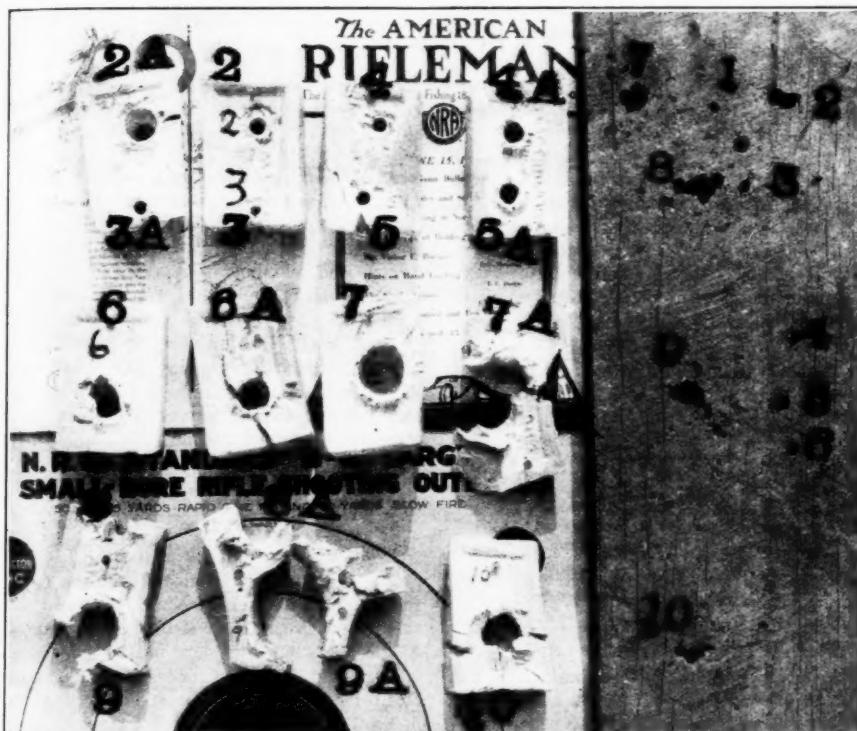
We are encompassed by a nasty situation, for our common post-War Lugers, when subjected to rigorous usage, reveal material that should not be used for casting anything more refined than window weights and stove legs, and exhibit a grade of workmanship that should be limited to the building of wheelbarrows. Many of those who read this are all too familiar with broken recoil springs, battered firing pin notches and trigger bars, Lugers which would fail to feed their cartridges, links which would bend under very little firing, and burst receivers.

There is, however, a simple remedy for all this woe. The dealers, jobbers, and manufacturers of Colt and Smith and Wesson arms stand ready to repair or replace any new arms of theirs which prove faulty in manufacture or in material. And we can have good Lugers in this country if every prospective purchaser will demand of his dealer, the importer, and manufacturer, a printed and signed guarantee, with each pistol purchased, to the effect that each pistol may be returned at any time it proves defective in any way, because of poor materials or workmanship, and that it will then be repaired or replaced free of charge.

There are now Luger pistols upon the market which are said to be fully equal to pre-War standards of finish, material, accuracy, reliability, and durability, and which are fully guaranteed. I have seen several of these and have been so poorly impressed by the character of the finish and workmanship that I have not cared to test the verbal guarantee to the extent of buying one, even at the low prices for which they are sold. But I do believe, however, that our more reputable dealers are at least trying to supply us with better post-War Lugers, even if their attempts have availed very little so far.

To the arm collector desiring a perfect specimen of a pre-War Luger, to the explorer expecting to travel in countries where Luger cartridges are the only pistol cartridges available, to the Luger fiend who blinds himself to all other pistols, or to the man who desires the peculiar advantages of Luger pistols and ammunition, pre-War Lugers in absolutely perfect condition are usually worth any amount up to \$50. But the man who merely needs a thoroughly reliable and powerful automatic pistol should pay no more for a Luger pistol in perfect condition than he would for a new Colt pistol. In fact, now that parts for Luger pistols have the same reputation that post-War Lugers have, he is wisest who buys a Colt.

There are many little differences between pre-War and post-War Lugers which serve to identify either of them very readily. Many of the pre-War Lugers, especially the .30 Lugers with $4\frac{3}{4}$ -inch barrels, had the conventional eagle of the U. S. seal stamped upon the tops of the receiver (*Concluded on page 24*)



More Shots at Soap

By J. E. Brownlee

Title illustration just about explains itself. The 2 x 8 board at the right of the soap shows that the hole in the board was not at all in proportion to that in the soap that was previously penetrated.

The magazine and target were put in to make a background and to show clearly the idea of the sizes of the holes.

BOYS, as you see, this is my second article about soap. I had so many telegrams from old friends congratulating me for using soap when it was not suspected, that I just had to do something—so I went into the cellar while the wife was attending morning services, and swiped several bars. I passed by the nest of a gun bug, got him, and we were off to the range for the day.

The object of this trip was to try out some new bullets made by the Western Tool and Copper Company of California, State of Hollywood. Besides, we had some samples of that new stuff (not bootleg) that had a latent animosity of 110 volts and 3500 amperes, that we wanted to see cut up.

The test in this case was made with a row of targets placed so as to record the progressive work of the expanding bullets,—also to pull a few scales off the eyes. Six inches behind the first bar of laundry soap was a second one, and six inches farther back was a white pine board fully two inches thick. For the benefit of the boys who never use soap, will say that a bar of laundry soap is two and five-eighths inches wide and four inches long. I mention this so that by looking at the exhibit, all can get a good idea of the comparative size of the targets and bullet holes.

Six inches behind the pine board was a gallon can filled with coarse sand. This can needs to be mentioned but once, for it is not surpassed by a single major league catcher in its ability to catch and hold the strikes and fouls. It held, and in fact atomized every bullet.

The bullet holes are numbered in order of firing, and the letter "A" follows the number to designate the second bar of soap. The bars of soap were very dry. The two important things to observe are: (1) The fail-

ure of the bullet to carry to the next bar of soap the hole the size of the exit from the first bar. (2) The failure of the 3500-foot bullet to deliver the goods for me.

I had with me Reece Fullerton, an expert rifleman, to handle the rifles, while I made the notes. I wanted the shots arranged with the exact nicety that was displayed two decades ago in the pictures in the Winchester catalog. He is a better shot than I. The morning was clear, and the flag showed no wind. There was practically no mirage, and as Mr. Fullerton took his place on the range for firing, I looked forward to a wonderful score. The distance was twenty feet.

We started with the bullets from the Copper Works of Hollywood. I had sent for the bullets for the experiment, as I wanted something real for a bear hunt this fall. However, the boss was out, and the office boy had sent me a sample package at two for a nickel as advertised.

We used the Krag and the artist's Model 1903 for the tests, firing one of each bullet design through each gun. The service ammunition was used, the bullets being pulled by a B. & M. puller. The new copper-jacketed bullets were seated in the baldheaded row with a Newton tool. With the weight of the bullets changing, the velocity varied from about 2050 to a plus or minus 5000 f.s. as we put six grains of powder extra behind the new 110-grain windbuster.

I forgot to mention that I had sandbag rest for both the target and Reece, but at this range it is taken for granted by most of us.

Shot No. 1. 150-grain bullet, hollow point, in Krag rifle. Fullerton's first shot for record—a miss. But the bullet got on the back

stop and went through the two-inch board like a full-jacketed bullet.

Shot No. 2. 150-grain hollow-point bullet, Springfield rifle. Bullet very slow in opening, and keyholed in the board.

Shot No. 3. 172-grain hollow-point bullet. Just creased the top of the soap, and no mushroom, or toadstool on the soap or board. The new Krag carbine was shooting high.

Shot No. 4. 172-grain hollow-point bullet, Springfield rifle. There was a slight opening on second bar, but none on board.

Shot No. 5. 110-grain wonder, hollow-point bullet. Krag carbine. Enough extra powder to boost the current up to about 3000 volts. Opened a little on second cake of soap, but did not show it on the board.

Shot No. 6. 110-grain hollow-point bullet. Springfield rifle. The candidate failed to register, but the meter said that this test took 3500 kw. I don't know. It opened next to the dealer on a pair of jacks, got nothing in the draw, and held the same hand in the second bar. When it lay face up on the board it was the same thing.

Shot No. 7. 172-grain (Western Cartridge Co.) soft point. This is the regular .30-30 bullet, loaded in .30-40 shell. This bullet went into the case like a lawyer with a big retainer fee. It was a wallop on the second bar, and was the first of a series to register facial expression on the pine board. (This bullet was from the Western Cartridge Co., of Illinois, not the Western Tool and Copper Co., of California.)

Shot No. 8. 220-grain (Western Cartridge Co.) bullet in the Krag carbine. This did nice work on both bars of soap and on the board. But shot No. 9 ruined some of its landscape. This soft-point bullet (*Concluded on page 23*)

The Shame of Wyoming

By C. C. Finn

ONCE upon a time Wyoming was a human country abounding in grizzly bears, .45 guns, and men able to cope with either or both. Then the country began to go backward; the he-men took to raising sheep, and the grizzlies to eating said sheep. And the he-men who didn't like the woolies got jobs in Hollywood, looking like men, and the place sure went to the devil. Any hope that it may come back is now quenched; they make a bid for fame from a town by the name of Rawlins with a pistol?, save the mark!, shooting No. 6 chilled shot by means of a rubber band and guaranteed on the box to be Smokeless, Noiseless, and Useless. To this has the proud, or rather once proud State of Wyoming, come.

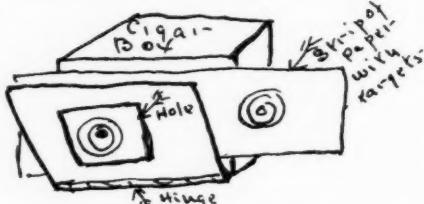
Well, the next thing was to see what could be done about it. So I sent and got me one (might as well admit all of it, now I am started). So far I have sent for four of the miserable things, and have received two. I had great hopes that they would be no good and that I could, for that reason, talk them out of making them. But they are worse than the itch. Once you get them, you have the devil of a time getting them out of your system. I can only write with savage pleasure of what I found wrong, and if it induces any of you to take a chance, don't say I didn't try to warn you.

As mentioned above, I received a package containing two of the S. of W.'s (just like S. & W., but so darn different). The directions are plenty and tell you about everything you want to know except how and where to put the rubber band, which I managed to find out without busting the pistol. The front sight is a messy thing without a single straight line in it, and the angles are all where they reflect the light; all helped by the fact that the sight is butchered out of a piece of shiny iron and reflects something grand. After shooting all over the house for a while, I suddenly remembered that the sights could be smoked, just like on a regular gun, and proceeded to do that same. If any of you do it, please be advised that the smoke, or maybe the flame, has some peculiar bad effect on the rubber band propellant. Most of you may know this already, but some might waste a band or so finding out—as I did.

Being now ready to do serious target practice, I set up the celluloid birdies (which they furnish) on their perches, and couldn't hit any of them. Watching the strikes in the box which they claim catches all the shot, I manipulated the sights and found to my utter amazement that the gun responded to sight changes. In five minutes I had abandoned the birdies as being too easy to shoot. When they tell you that their box catches all the shot without damage they lie miserably and betray their servile subjection to the Lead Trust. The box does not catch all the shot, or even a lot

of them, and it does mutilate the shot, as I got a number of unaccountables due to flat shot, and besides that nearly wore out my back recovering shot from under the safe, desks etc. Never shall I contribute to the Lead Trust, except, of course, for match purposes where the new shot are much the best to use.

As my stenographer began to show signs of disapproval, both of having the shot bounce back over her desk and of being requested to pick the same up carefully and return at once



to my desk, I decided to make a real butts. The picture shows it all. I had a cigar box 6 inches wide, 5 inches high, and 3 inches deep, with a hinged cover. First duty was to reinforce the hinge with some surgical tape we keep in the office for me to use when I open up a gun on my desk and the screwdriver slips with bad results. While I had the tape in hand, I rolled a lot of it around the miserable wire trigger, and made a nice, chunky gob which had a sweet feel to the finger. The first 500 shots I fired in the first hour after I got the gun nearly cut my finger in two.

Then I cut a hole in the hinged cover of the box somewhat larger than the target stamp they furnish. Might as well mention that rubber stamp right now. It comes in a cute tin can, and was designed by some young wart with insufferably good eyesight, as the bull is just a plain ring. After trying hard to see the darn thing, I blacked the whole 4-ring with the blue pencil I have on my desk to edit my own stories. That is why they appear in THE RIFLEMAN just as written, except for the fortuitous effects the compositor achieves when he shuffles and cuts the slugs and then makes a misdeal.

We are now back to the target butts. After cutting the hole in the cover, I padded the inside of the box with several thicknesses of newspaper, and covered it with some bits of cloth, holding all in place with a few thumbtacks. You now print a couple of targets on a strip of paper, pass the paper back of the cover so the target shows through the hole, shut the cover which holds the paper firmly in place. Any shot which misses the paper, falls to the floor and is rejected as too badly damaged for use. The rest are gently caught by the padding, and can be used over again to the eternal torment of the Lead Trust. After trying all kinds of paper, I find that common mimeograph paper is the best, as it tears easily, and the shots can easily be lo-

cated by looking on the back. There is one effect you have to watch out for. If you get two shots close together, and get a fairly big hole in the paper, the hole acts like a kind of funnel, and all shots striking near its edge slide through the hole and leave no mark.

Now we were ready for work, and I measured off twelve feet, making it possible for me to sit comfortably in my office chair and shoot 'em away. Results were good from the start, except to the nerves of callers who opened the door and saw me aiming apparently right at them with what looks like a gun; disconcerting to say the least, and besides that, they made me pull off several of what would have been center bulls.

The front sight shined up every time I had to pull it out to load. You pull out the front sight, and slide a mess of No. 6 shot down the tube in which the front sight fits and acts as a lock to keep the shot in the magazine.

As the kid is away to college some 300 miles off, I raided his radio kit and swiped a bit of black Bakelite, and from it I made a sweet front sight with all the angles the right way, straight lines, proper profile, and as the material is black, it doesn't have to be smoked. This improved my shooting so much that I took the—well, you can't say gun,—took it with me on a 100-mile drive to see that the Snoqualmie Valley Rifle Club got off right on their first annual meeting last night.

Can you imagine an old shooter deluding innocents on their first meeting where they think they are starting a rifle club, with such a contraption as that? Guess Wyoming and I are going downhill together, and going fast. The one bright spot is that, while the men members of the Snoqualmie Valley Rifle Club were much interested, and I think at least one of them sent for one of the things today, their one and only lady member would have none of it. And the women are, thanks be, the mothers of the coming generation.

Now I have been over all the gun but the rear sight. It is adjustable for both elevation and windage, both voluntary and involuntary. When you slide the carrier back to cock the gun, your fingers do some volunteer adjusting, you lower the elevation and slide the windage over to the left. I scratched some marks so I could tell where the sight had been before it got where it was, but I have designed a real rear sight, and as soon as I get time to make one and apply for a patent I will tell you all about it.

At that, the darn thing is interesting and maybe not harmful. It has helped me a lot with my friends who thought I was not as crazy as I used to be; they know that I am worse, and derive much comfort from that fact, not knowing that they are all worse than I am,—some play golf, some wear themselves out getting business when they might be shooting, and some are secretaries of rifle clubs.

Riflemen of America

By Maj. J. S. Hatcher

ON the same page of this issue there is printed a translation of an article from the Swiss *Rifleman's Gazette*. This article is well worth the serious attention of every American rifle shot.

At one time America was a nation of riflemen. Those were the days of the pioneer, when every man's life and the welfare and safety of his family depended upon his ability to use his rifle. As advance in civilization pushed the frontiers of the country to the West, we still remained largely a nation of riflemen, for skill in the use of this weapon was still necessary as long as the great plains teemed with wild life, and it was never certain whether the Indian was friend or foe.

While the American as a class was still considered as having a knowledge of firearms, the bulk of this type of skill had traveled to the westward. Finally, however, the frontiers vanished, and the wilder portions of the country became more civilized, and at the same time the need for skill in firearms became less urgent.

At the present time we still fondly imagine that we are the greatest nation of rifle shots in the world, but the truth of the matter is that the great bulk of our population, especially in the East, know little and care less about firearms and how to use them.

Conditions are very different in Switzerland. This small nation consists of a few clans of mountain folk, who some centuries ago wrested their independence from their fierce, warlike neighbors, and depended for their very existence upon their ability to defend their rugged mountain strongholds. Their greatest national hero is the famous marksman, William Tell.

In Switzerland there has been no change of frontiers to render marksmanship obsolete. Conditions in this regard are the same there now as they were hundreds of years ago. Artillery cannot penetrate their steep mountain passes. The Swiss believe that if their country is ever conquered, it will have to be by

dislodging in detail the defenders of their wooded hills and valleys. An invader on a mountain road would have a very uncertain existence if the slopes around him were dotted with deadly marksmen.

It has been taught so long that it has grown to be a part of the nature of every native of Switzerland to believe that his country does, and must, excel all others in marksmanship.

A glimpse of this feeling can be seen in the fervent, impassioned tone of the article mentioned above with its references to patriotism and National Honor.

The International Matches have been held every year since 1897, except during the years of the Great War. Three times only has the American Team succeeded in defeating the Swiss. In 1913 the Matches were held at Camp Perry, Ohio, and the Swiss Team came over to this country and defeated us on our own range.

As the author of the article says, the Swiss were indeed "unhappily surprised" by these three American victories. With these facts in mind, we can perhaps forgive them for attributing our success to equipment, rather than to marksmanship.

The next International Matches are only a little over six months away. The Swiss are thoroughly organized. Their rifles also have been "highly perfected," and the sights they use are practically a copy of our own Lyman type. They have excellent ammunition.

Above all, they are highly organized and are training their Team at this very instant to prove this year at Rome that they are beyond all doubt the Master Riflemen of the World, and that the previous success of the Americans was only a temporary victory due to superior equipment.

We can defeat them. Their very anxiety on this score will help us. But to be successful we must organize for victory. The Team we take over this year must without question be the very best free rifle shots that can be got

together from any American source, and from every American source.

International Match shooting is a fascinating game, and is well worth the attention of every member of the National Rifle Association. A place on the squad is an honor greatly to be coveted. It means even more after the squad arrives in Europe than it does in this country, because American rifle shooting has a sort of legendary tradition in Europe, and the members of the Team are looked upon as famous personages, and treated as such.

Of course, not all those who go over are actually selected for the five who shoot in the Team Match, but there are many other matches with interesting conditions and wonderful prizes, and these are all open to any member of the squad. For example, last year at St. Gall, Lloyd T. Meeds, who did not shoot on the Team, won the Unlimited Re-entry Match, with a prize of \$100, and all the other members of the squad won prizes of various kinds.

For the benefit of those who are not familiar with the conditions of the International Match, it may be said that this Match is fired at 300 meters with a heavy-barreled rifle, using set triggers and iron sights. The target is one meter in diameter, and consists of ten rings equally spaced; the center or 10-ring being 3.9 inches in diameter.

The Match consists of forty (40) shots in each of the three positions, standing, kneeling, and prone, or one hundred twenty (120) shots in all, with ten (10) trial shots allowed in each position.

It is up to every American rifleman who cares anything of what the world at large thinks of our shooting, to do what he can to help organize for victory in 1926.

It is the intention of the National Rifle Association to hold regional tryouts which will allow every one to have a chance at this Team, and every rifleman who can use a set trigger should start his preparations for these tryouts at once.

Master Riflemen and Champions of the World!

By Alfred Collomb in "La Gazette des Carabiniers Suisses"

Translated by Maj. J. S. Hatcher

THE cannon shot which announced on Friday evening the end of the International Matches at St. Gall, saluted at the same time the resounding victory of the Swiss Team.

Unhappily surprised by the check to our riflemen at the three last International Matches, the attention of our population followed with a feverish anxiety all phases of the contest which took place at the St. Gall range. Were the universally recognized excellence and

leadership of our riflemen again to fall before the material superiority of a foreign weapon perfected to the last degree, and the clever use of an ingenious system of sights, to which the American Team have owed their past triumphs? Would our riflemen, for a time dislodged by an accident which was in no sense due to any default on their own part, be able to regain their position, and in the face of their adversaries would they be able to re-establish the renown of the National Honor?

And now the Matches of 1925 were underway, putting to the test the proved champions of seven nations: North America, Belgium, Denmark, France, Holland, Italy, and Switzerland.

If anxiety and doubt had been general from one end of Switzerland to the other at the first announcement of these Matches, it gradually gave way to a hope which sprang up and then increased into confidence and pride because never, we think, had our country put into line

a more homogeneous team to represent its colors than that which was formed of these masters: Hartmann, Lienhard, Zimmermann, Pelli, and Reich.

It was marvelous to see them. Cool, impulsive, without nerves, finger on the trigger, aiming, firing, and making their bull's-eyes!

And still, what formidable competitors were those who were lined against them! The Americans, Fisher and Boles, to mention only these chief antagonists, had returned against us still under the prestige of their recent victories; and the rigorous training which, with the characteristic Anglo-Saxon tenacity, they had imposed upon themselves during the two weeks immediately preceding the Matches on the very identical range where the shoot was to be held, was in itself an indication that the contest would be a very serious and diffi-

cult affair with the result subject to doubt.

Out of this trial our riflemen have come victorious, and never was the result of a friendly contest more decisive, or better established, because it is in all three positions, kneeling, prone, and standing, that Hartmann and Lienhard established a new world's record for military rifle shooting, and that Hartmann won the title of Champion of the World.

Well have they merited the triumphal ovation given to them by the delirious crowd when at the stroke of seven o'clock, Friday afternoon, the 14th of August, they left the then quiet shooting stand, the scene of their victory.

The same acclamations spread over the whole of Switzerland, warm and vibrant, rendering homage to these gallant men who had sustained the honor of their country.

It was fitting and proper that as they passed along the women threw flowers to them and that under the care of the roses which brushed their laurel-crowned foreheads, they proceeded with dignity and happiness, because they had the consciousness of having crowned with a renewed luster the proud and beloved banner of their ancestors.

Oh Fathers of Grutli, Stauffacher, Melchthal, Furst, and thou Oh Heroes, O Tell, who are saluted on the first of August* by the deepest emotions of our reverent hearts and the beacon fires on our peaceful Alps; you have trembled with emotion as they passed, these champions of the National Honor, and you have blessed them, for they are your true sons, on whose arms the Switzerland of the future must lean for support!

* Note: August 1 is the Swiss Independence Day.

Further Results from St. Gall

By Maj. J. S. Hatcher

IN addition to the International Team Match, which was the main event of the shoot at St. Gall, there were numerous other matches of various kinds open to every one present. The most important of these were the Unlimited Re-entry Match and the Master Rifleman's Match.

Owing to the large number of special matches which were held, and the tremendous number of competitors, the results of these matches were not known definitely at the time the Team returned to America. The official scores in these two important matches have now come to hand, and are given below.

It is interesting to note that in the Unlimited Re-entry Match, which was fired prone, the seven American contestants all got into the first twelve places, which indicates that we still have the edge on everybody else as far as prone shooting is concerned.

The winning of the Unlimited Re-entry Match by Mr. Meeds, with only three points down from a possible, is one of the bright points in the performance of the Team this year.

The Unlimited Re-entry Match consists of strings of four shots each at the regular International Match target at 300 meters. There is a maximum of one hundred strings of four shots allowed to any one competitor. The ten best strings are counted. Meeds had seven 40's and three 39's, making a score of 397 out of 400. For winning this match he will receive a prize of 500 fr., which amounts to \$100.

The prize winners in this match were as follows:

PRIZES			
Name	Nation	Points	French U. S.
1 Meeds, Lloyd—U.S.A.	397	500	\$100.00
2 Hartmann, Josias—Switz.	393	400	80.00
3 Boles, J. K.—U.S.A.	393	300	60.00
4 Jsenegger, Dr.—Switz.	393	250	50.00
5 Joerger, Frank—U.S.A.	392	200	40.00
6 Lienhard, Walter—Switz.	235	150	30.00
7 Fisher, Morris—U.S.A.	235	120	24.00
8 Balmer, Jakob—Switz.	235	100	20.00
9 Morgan, A. M.—U.S.A.	235	85	17.00
10 Rosli, Arnold—Switz.	235	75	15.00
11 Phillips, J. F., Lieut.—U.S.A.	234	70	14.00
12 Coulter, R. O.—U.S.A.	234	60	12.00

PRIZES			
Name	Nation	Points	French U. S.
13 Pelli, Giuseppe—Switz.	233	50	10.00
14 Schnyder, W. Dr.—Switz.	233	40	8.00
15 Satter, Lassen—Denmark	233	35	7.00
16 Kuchen, F.—Switz.	232	30	6.00
17 Pfeiderer, Hans—Switz.	230	30	6.00
18 Schenker, Paul—Switz.	230	25	5.00
19 Roes, G.—France	228	25	5.00
20 Herzog, G.—Switz.	227	25	5.00
21 Johnson, Leon—France	227	20	4.00
22 Attinger, Hermann—France	226	20	4.00
23 Larsen, N.—Denmark	226	20	4.00
24 Burdorfer, E. Dr.—Switz.	223	15	3.00
25 Kaelhave, No.—Denmark	223	15	3.00
26 Fischer, Jakob—Switz.	152	15	3.00
27 Trondle, Albert—Switz.	151	15	3.00
28 Beauchamp, R.—Switz.	150	15	3.00
29 Moser, Adolf—Switz.	150	15	3.00
30 Miard, Raoul—France	149	10	2.00
31 Weibel, Rud—Switz.	149	10	2.00
32 Surl, Albert—Switz.	149	10	2.00
33 Lafontaine, Francois—Belgium	149	10	2.00

This Master Rifleman's Match consists of sixty shots at 300 meters, twenty standing, twenty kneeling, and twenty prone. The score is by cartons instead of points, although the points of the score are recorded for use in case of a tie.

For the standing position a carton consists of the seven, eight, nine, and ten rings. Any shot striking in any one of those rings counts as one carton.

For the kneeling and prone positions, a carton consists of the eight, nine, and ten rings.

Those competitors making fifty cartons or more, were proclaimed Master Riflemen, and received a distinctive medal and a crown of mastership. These crowns of mastership were composed of laurel leaves tied with a distinctive color of ribbon, and were worn on the hats of the successful competitors. They formed a much-coveted decoration.

Every day during the progress of the match, the names of those who had qualified were proclaimed from the rostrum in the dining-hall. At one time Fisher was high, with fifty-six cartons, but he was finally outclassed by no less than seven Swiss.

It is interesting to note that the course for this match is exactly the same as the International Team Course, but with half the shots. Accordingly, by multiplying the scores by two, they are comparable with the Team

Match scores. It will be seen that in this match Fisher got 526, which would correspond to 1052, and this is quite consistent with his score of 1051 in the match. Hartmann's score was 551 in this match, corresponding to 1102, whereas he actually got 1109 in the big match. The detail scores follow:

PRIZES			
Name	Nation	Points	French U. S.
1 Hartmann, Josias—Switz.	60-551	100	\$20.00
2 Zimmermann, Karl—Switz.	59-549	80	16.00
3 Lienhard, Walter—Switz.	59-535	70	14.00
4 Pelli, Giuseppe—Switz.	58-549	60	12.00
5 Kuchen, Fritz—Switz.	58-526	50	10.00
6 Jsenegger, Dr.—Switz.	57-523	40	8.00
7 Schenker, Paul—Switz.	57-505	35	7.00
8 Fisher, Morris—U.S.A.	56-526	30	6.00
9 Gouery, Louis—France	56-507	30	6.00
10 Coulter, R. O.—U.S.A.	55-522	25	5.00
11 Reich, Jakob—Switz.	55-521	25	5.00
12 Johnson, Leon—France	55-516	25	5.00
13 Rosli, Arnold—Switz.	55-514	25	5.00
14 Larsen, N.—Denmark	55-509	25	5.00
15 Roes, Georges—France	54-525	20	4.00
16 Pfeiderer, Hans—Switz.	55-512	20	4.00
17 Schnyder, Dr. Willy—Switz.	53-515	20	4.00
18 Boles, P. K., Major—U.S.A.	52-518	20	4.00
19 Phillips, J. F., Lieut.—U.S.A.	52-514	20	4.00
20 Dodson, M. H.—U.S.A.	52-513	20	4.00
21 Pederson, A. V.—Denmark	52-510	20	4.00
22 Trondle, Albert—Switz.	52-505	20	4.00
23 Gut, Hans—Switz.	52-490	20	4.00
24 Morgan, A. M.—U.S.A.	51-622	15	3.00
25 Larsen, Saeter—Denmark	51-517	15	3.00
26 Durand, Raymond—France	51-513	15	3.00
27 Tellenbach, Ernst—Switz.	51-510	15	3.00
28 Jensen, Robert—Denmark	51-500	15	3.00
29 Attinger, Hartman—France	51-494	15	3.00
30 Lischer, Emil—Switz.	51-493	15	3.00
31 Miard, R.—France	50-507	15	3.00
32 Balmer, Fritz—Switz.	50-492	15	3.00
33 Amondruz, Gustave—Switz.	50-487	15	3.00
34 Stutz, Hermann—Switz.	49-504	10	2.00
35 Herzog, Gustav—Switz.	49-499	10	2.00
36 Weber, Hch—Switz.	49-499	10	2.00
37 Muller, Dr. E.—Switz.	49-491	10	2.00
38 Meeds, L. T.—U.S.A.	49-491	10	2.00
39 Kellenberger, Emil—Switz.	49-488	10	2.00
40 Isler, Paul—Switz.	49-485	10	2.00
41 Strickler, Hch—Switz.	49-483	10	2.00
42 Joerger, Frank—U.S.A.	48-503	5	1.00
43 Rumeau, Emile—France	48-502	5	1.00
44 Scheuter, J. P.—Holland	48-493	5	1.00
45 Veurman, M.—Holland	48-492	5	1.00
46 Beyer, Ludwig—Switz.	48-492	5	1.00
47 Gaiger, Max—Switz.	48-491	5	1.00
48 Stalder, F.—Switz.	48-488	5	1.00
49 Fischer, Jak—Switz.	48-481	5	1.00
50 Pfefferli, Albert—Switz.	48-	5	1.00
51 Coletti, Albert—Italy	48-	5	1.00
52 Permentier, Andre—France	47-497	5	1.00
53 Burgdorfer, E.—Switz.	47-495	5	1.00
54 Waibel, Rudolf—Switz.	47-485	5	1.00
55 Zender, Christian—Switz.	47-476	5	1.00

Pistol Play

By J. E. Berns

I DO not remember ever reading a more instructive article on the handling of revolvers and pistols than that of E. A. Price which appeared in the November 15 issue of THE AMERICAN RIFLEMAN under the caption "Preparing for Action." Mr. Price's presentation of various methods of carrying and of drawing is just teeming with valuable hints for handgun devotees and is well worth several readings. His description of the draw of a Single Action from a tied-down holster on the right leg is a whole correspondence course in a few lines. Any one wishing to become proficient at that particular stunt needs only to thoroughly digest Mr. Price's instructions, follow them diligently in practise for a few weeks, and he may fare forth confident that he can put up as good a performance as any Dead-Eye Dick that ever swaggered in front of a motion picture camera. Add a few more weeks of actual firing, and the picturesque movie bad-man will have been outclassed altogether because his game does not include hitting anything.

Quoting the lines referred to: ". . . place the thumb just as positively on the hammer spur as the fingers are placed on the grip, before the gun is drawn. The cocking operation starts as the gun is drawn upward; thus the cylinder actually revolves slightly before the gun has left the scabbard . . . and as the muzzle is thrust forward it is steady and ready for an accurate shot."

In the above quotation the positive placing of the thumb on the hammer spur is directly and clearly stated, and the equally positive placing of the fingers around the grip is inferred. In handling any single-action arm these two considerations really become one under the heading of grasping the gun. This is the all-important consideration of a swift and sure draw. If the first contact of hand and butt does not result in a firm and positive grasp, then that draw is a fumble. No readjustment of the hand on the grip is permissible in the successful drawing of any handgun. Price brings out the importance of this in that portion of his article which deals with the remodeling of holsters for the .45 Automatic to permit the second finger to go snugly against the trigger-guard on first grasping the weapon.

The cocking of the revolver at the same time it is drawn upward is obviously so that it will be ready to fire at any time after the muzzle clears the scabbard. Incidentally, the cylinder starting to revolve while still bearing against the sides of the holster seems to, somehow, aid in freeing it from the slight grip of the leather.

" . . . as the muzzle is thrust forward it is steady and ready for an accurate shot." The meat of these few words will be fully appreciated only by those who have practised quick drawing and firing. Were accuracy—

even of the quick-draw kind—of no concern whatever, there would be no object in thrusting the muzzle forward, for the thrust can easily be omitted—too easily sometimes. This poking (a more descriptive term, I think) the gun at the target is the means of aiming. The thumb has completed the job of cocking during the upward movement and is unconsciously laid in position alongside the frame as the motion shifts from upward to forward. Thus the hand is in complete control of the gun as it is being "poked"—or aimed—and fired.

This is the S. A. draw employed by Elmer Keith and, using it, he can draw and get his first shot out faster than any man I have ever seen with any type of gun. Shooting at a ten-pound lard pail in this manner he gets more hits than misses at ten to fifteen yards. On a man-size target he is practically certain of hitting up to twenty yards. Being a cattleman, Mr. Keith of necessity spends a great deal of time on the navigating bridge of a hayburner; hence the holster on the right leg. I doubt if a rider could evolve a more convenient way to pack his artillery, even if merely taking it, empty, to a gunsmith—or to "his uncle."

In selecting a type of handgun, the matter of fitting the hand should receive greater attention than it usually does. Keith could tell us a great deal on that subject if he chose to, for, while he is more or less wedded to the S. A., he frequently strays into strange pastures and is not exactly helpless with the Automatic or any of the double-actions. The S. A. Colt will undoubtedly always comprise his main battery, however, for his hand is peculiarly well fitted to that gun, being large and square with short, thick, square-ended fingers. I suspect he was born with one in his right paw and that his fingers just grew into place around that grip.

There are two facts that give me the necessary nerve to relate this tale-out-of-school on Elmer Keith. One is that about fifteen hundred miles separate us at the present time; the other is that his gun hand is just now temporarily out of commission, he having broken the third finger a week or more ago. Not being in reach of a gunsmith (yes, that's intended) at the time, he set it himself and spliced a piece of cigar-box alongside for a splint. Before his hand parts company with that splint I shall have changed my address.

The leg holster method of carrying a pistol, however, is in this day, for quite obvious reasons, perhaps the least used of any. Mr. Price described a number of other practical methods of packing and drawing which are more suited to the times. The "poke" method of aiming may be used with good success in connection with nearly all of them.

When inserting that word "nearly," I had in mind particularly the draw across the front of the body from a belt holster as it

is most admirably performed by that nationally known handgun artist, Mr. Fitzgerald of Hartford, Connecticut, a town where a few revolvers and pistols are manufactured from time to time by the people that employ Fitz. The latter uses a double-action revolver (Iver Johnson, I think) and, as part of his drawing motion—or just before it, if possible—swings his whole body so that the gun muzzle is pointing at his target as soon as it clears the holster, his gun hand resting against his tummy, about amidships, at the moment of firing. The hand and arm not in use are raised quickly to nearly shoulder height, and the bullet passes under them. Resting the gun hand thus, as Fitz himself states it, he aims with his body. He wears a left-handed holster to the right of his belt buckle and, ordinarily draws left-handed. But should you ever encounter him rigged out in that fashion, do not be deceived into thinking him harmless if his left hand happens to be busy otherwise, for he can throw a mean right, drawing and firing the gun upside down. This is not by any means his only trick draw either—or, do I think, his best.

The Chauncey Thomas' secret, which Mr. Price states was slipped to him in an unguarded moment by C. T. himself, is without doubt unbeatable. The holster involved is surely the best ever—and cheap. In spite of Mr. Thomas' threat never to reveal his great secret, I begin to suspect that his kindly heart is apt to make him relent somewhat when in company with a friend, for he suffered a similar unguarded moment one night last summer in my igloo at Camp Perry. Price had better be on the alert against unguarded moments himself for he comes near disclosing C. T.'s secret farther along in the same paper.

There is one other handgun wizard without mentioning whom this article would be like unto a big league baseball yarn that failed to mention Ty Cobb. I have reference to John Newman, well known to many AMERICAN RIFLEMAN readers as "Burro Puncher."

Mr. Newman's particular hobby is single-action rapid-fire at aerial targets. In practising at this, which he has been doing steadily for many years, he uses a short-barreled Single Action Army with bushings fitted in chambers and barrel making it a .22. His ability to hit a gallon can three times in the air with a gun of this type has been mentioned frequently in various sportsmen's magazines during the past fifteen years or more. In those days Newman used triggers in his guns, and his very fastest shooting enabled him to get out four shots at a tossed can, although he never succeeded in making more than three hits. About four years ago he commenced experimenting with triggerless S. A. guns and, by moving the hammer spur lower down on the hammer and shortening it, he has evolved a method of operation (*Concluded on page 20*)

"Roll Your Own"

By Gordon Griffith

DURING the past few years a number of members of the Sharon Rifle Club have derived considerable pleasure and experience from hand loading ammunition, using largely components secured by pulling down War-time service cartridges.

We had several cases of this on hand, and, as we all know, it is none too accurate or dependable.

Upon seeing a suggestion in THE AMERICAN RIFLEMAN in regard to taking the War-time stuff apart, salvaging the good components and reassembling it with more care, some of us began to produce fairly good ammunition at low cost.

One of the first loads used was the Whelen small game load, 18 grs. du Pont No. 80 and the service bullet.

This gave good results loaded in War-time cases and the light pressure developed gave them a useful life of several loadings, where one load of full power ruined them for further use. Our best groups at 100 yards averaged $2\frac{1}{2}$ inches.

The pointed full jacketed bullet was no good however for woodchucks, and the next attempt was with the 115-gr .32-20 S. P. bullet in front of 18 to 20 grains du Pont No. 80. It gave good accuracy and killed perfectly at moderate range.

Later in an endeavor to produce ammunition suitable for large game and also accurate target loads we began to experiment with the .30-30 bullet (170-gr. and S. P.); the 170-gr. F. A. Flat Base; 220-gr. Western S. P. Lubaloy; 150-gr. Western Open Point Expanding; 180-gr. Western O. P. Ex. Boat-Tail; and also various lead bullets.

A short time ago I loaded a few cartridges of several different loads, and as I had no opportunity to try them myself, requested Mr. R. C. Veazey, of New Wilmington, Pa., to do so. He is an enthusiastic and careful rifleman and an unusually steady and consistent shot. He uses a peculiar sitting position that only he

can get into, no sling, though he himself is all tied up into a knot. He seems to get the steadiness of prone shooting with rest.

The inclosed groups were shot one afternoon early in January, under ideal shooting conditions, gray, dull day, no wind, 100-yd. measured range, on the 20-yd. pistol target with the 7-ring blackened with ink. No other targets being available at the time. One target was used to sight in on, five shots being used for this purpose. Then the targets numbered 1 to 4 were fired in rotation, in the same order in which I have numbered them.

Group No. 1. The only commercial ammunition used was fired with Remington Hi-Speed, 110-gr., 3500 f.s. load. Rifle, Sporter Springfield, Model 1922 stock, Lyman sights, 48 rear, and gold bead front, 5-shot group measures $1\frac{1}{2}$ -in. elevation, 10 minutes, windage 0.

The sight settings as given mean nothing in comparison with service sights, as the gold bead is about $1\frac{1}{10}$ -in. higher than service front sight. They are given here for comparison with different loads from the same rifle. They do show, however, that at this range and in this same barrel, all the loads in question shoot close enough to same sighting for all practical purposes. Target has been torn and group enlarged from size as originally shot.

Group No. 2 was made with the 170-gr. .30-30 S. P. bullet, in front of 44 grains of du Pont No. 16 powder loaded in 1924 National Match fired cases obtained by stealth at Camp Perry. Velocity about 2400 f.s., elevation 10 minutes, windage 0. The 10-shot group measures 2 inches (outside to outside of bullet holes) should be a good deer load, accurate, inexpensive, and with plenty of power. In effect it steps up the .30-30 with the heavy bullet from 2000 to 2400 f.s. This bullet with same charge of Pyro DG was very inaccurate, about 8-in. groups at 50 yards. Why? I do not know.

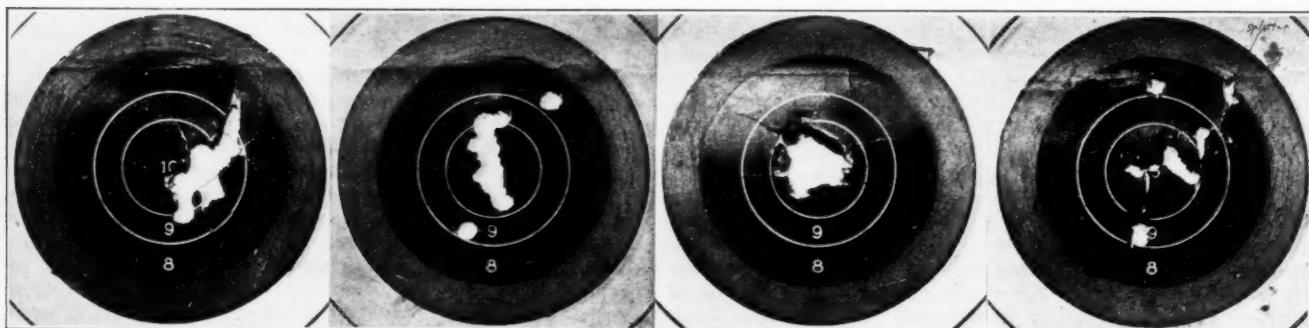
Group No. 3 which seems remarkable to us, was shot with a load consisting of 170 grains F. A., F. B. gilding metal bullet propelled by 47 grains of Pyro DG salvaged from Remington '18 War-time loaded cartridges, loaded in 1924 National Match cases, Winchester $2\frac{1}{2}$ primers. Loaded with Ideal tool, powder measured in Ideal measure and checked every few loads on Bond No. 80 balance. A 10-shot group measures $\frac{3}{4}$ -in. at 100 yards range. All shots would have struck a dime. Elevation 10 minutes, windage 0.

Why did this powder give this accuracy with this bullet and such poor accuracy with the 170-gr. .30-30 bullet? While with No. 16 the .30-30 shot well? Have a theory, but will not present it now.

Group No. 4 Load consists of 220 grains Western Lubaloy S. P. bullet, driven by 43 grains du Pont No. 16, '24 Match cases, Winchester primers. Velocity about 2250 f.s. This load gives more recoil than the others (but the primers give no evidence of high pressures), and is seemingly less accurate, though not at all bad. In a 10-shot group there was one off shot which does not show in the reproduction, in 5-ring at 7 o'clock about 3 inches from center. This was due to flinching and was called. Recoil was heavy and Veazey was getting tired. The nine shots in the normal group measures $2\frac{1}{4}$ inches outside to outside.

Hardly expected these various loads to all group so near center with the same sight adjustments. Also the gold bead front sight is not ideal for target shooting. We usually use a scope for testing.

A short range load for use indoors at target and also one I believe would be ideal for grouse or other small game at short range is Bond bullets A311700-120 and 150-gr. and 4 grains du Pont pistol powder No. 5. This is accurate, as inclosed target show. These were made at 50 feet, indoors. Same sights as other groups. The report is (*Concluded on page 20*)



Above group are all reduced one-half size. They were fired a 100 yds. with the same elevation and windage with Lyman 48 rear and gold bead front sight. Sight setting, 10 min. elevation; 0 windage.

1
Remington Hi-Speed Load,
110-gr. Bullet. 3500 f.s. Ve-
locity. 5 shots.

2
170 Soft Point .30-30 Bullet.
44 grs. Dup. No. 16. 2400 f.s.
Velocity. 10 shots.

3
170 Frankford Arsenal Flat Base,
Gilding Metal Bullet. 47 grs. Pyro
DG from War-time cases. 2500 f.s.
Velocity. 10 shots

4
220-gr. WCC S. P. Lubaloy Bullet.
43 grs. Dup. No. 16. 2250 f.s. Ve-
locity. 10 shots. Recoil heavy.

A Short Cut to Exterior Ballistics

By Edgar Bugless and Wallace H. Coxe

Ballistic Engineers of the E. I. Du Pont de Nemours & Company

Part VII. The Determination of the Angle of Fall

DRAWING No. 7 is designed to enable the reader to calculate the Angle of Fall. This drawing, like the charts for the angle of departure and the time of flight, is self-explanatory and independent of the group once values for the known variables Z, the angle of departure Ω , and the muzzle velocity have been obtained from outside sources or from the preceding charts. The angle of fall is that angle between the line of sight and the tangent to the trajectory at the point of impact. It occurs on the opposite end of the trajectory from the angle of departure. The angle of fall is not of great interest to a hunter or any one firing over short ranges. It has considerable value in warfare, but is included in this series primarily to enable the rifleman to complete the trajectory calculation if he so desires.

The angle of fall always has a greater value than the angle of departure, due to the bluntness of the trajectory at the point of impact. As explained before, the bluntness of the trajectory is due to the attraction of gravity which acts as a constant force upon the rapidly slowing bullet. This causes a greater vertical drop for each unit of horizontal space traversed in direct proportion to the loss of bullet speed.

As the bullet decreases in speed, an increasingly longer period of time is required for the bullet to pass over each succeeding yard of range, thus affording gravity a longer and longer time for each remaining yard of range in which to draw the bullet toward the earth, thereby causing a greater vertical drop in each yard of horizontal bullet movement than was caused in the preceding yard.

Drawing No. 7 is plotted by means of the formula,

$$\tan W = B' \tan \Omega$$

Where $\tan W$ = Tangent of the Angle of Fall

B' = A secondary function depending upon range, ballistic coefficient, and velocity

$\tan \Omega$ = Tangent of the Angle of Departure

The chart for the determination of the angle of fall is constructed in a manner similar to the chart for the determination of the angle of departure which has been explained in a previous issue. The values of the different symbols, the limits and spacing distances used in constructing Drawing No. 7 are given in detail in Table No. 7A. It will be noted that the axes of the angle of fall and the angle of departure were simplified by being graduated directly in terms of angle instead of in terms of the tangents of the angle as called for in the formula, to simplify the reading of the chart.

Table No. 7B included in this issue contains all the data of Table No. 6B given in Part VI of the series, (*Concluded on page 20*)

Table No. 7A

TABLE OF VALUES USED IN CONSTRUCTING ALIGNMENT CHART FOR THE DETERMINATION OF THE ANGLE OF FALL THROUGH A SOLUTION OF THE FORMULA $\tan w = B' \tan \Omega$

Where $\tan w$ = Tangent of the Angle of Fall

B' = Secondary Function depending upon Range, Ballistic Coefficient and Velocity

$\tan \Omega$ = Tangent of the Angle of Departure

Name of Axis	Symbol	Number Limits	Log. Limits	Log. Difference	L	Actual Length	Scale Number	Equivalent Scale	Scale to Use
Horizontal Range for $C = 1$	Z	0.73—20000	1.86332—4.30103	4.43771 2	8.88	5 5	50		
Secondary Function	B'	1.000—2.465	0—0.39178	0.39178 10	3.9178	1 1	10		
Tan Angle Departure	$\tan \Omega$	0.00015—1	4.17609—0.0	3.82391 2	7.65	5 5	50		
Tan Angle of Fall	$\tan w$	0.00015—2.465	4.17609—0.39178	4.21569 1-2/3	7.03	6 6	60		

Ω —Ref. Line = $18''$ w = $5/6 \times 18$ from Ref. Line = $15''$ from Ref. Line

In the construction of this chart as in the construction of the chart for angle of departure, it was found necessary to use a series of velocity axes due to variations of B' for different velocities. The axes for angle of fall and angle of departure were simplified by being graduated directly in terms of the angle instead of the tangents of the angle as determined by the formula.

Table No. 7C

TRAJECTORY CHARACTERISTICS OF THE .30-06 SPRINGFIELD 172-GRAIN 9° BOAT-TAIL BULLET AT A RANGE OF 800 YARDS, STARTING AT A MUZZLE VELOCITY OF 2700 FEET PER SECOND AGAINST A 10-MILE CROSS WIND

Characteristic	Formula	Calculated Result	Chart Reading
Ogive			9
Coefficient of Form (i)			.465
Ballistic Coefficient (C)	$C = \frac{w}{id^2}$.56	.56
Muzzle Energy (E)	$E = \frac{MV^2}{2}$	2780 foot pounds	2800 foot pounds
Value of Z	$Z = \frac{X}{C}$	4285	4300
Remaining Velocity	$S_u = Z + S_v$	1576 foot seconds	1560 foot seconds
Angle of Departure (Ω)	$\sin 2 \Omega = AC$	27 minutes	28 minutes
Angle of Fall (w)	$\tan w = B' \tan \Omega$	38 minutes	40 minutes
Time of Flight (T)	$T = CT' \sec \Omega$	1.17 seconds	1.3 seconds
Height of Trajectory (Y_o)	$Y_o = HX \tan \Omega$	66.36 inches	67 inches
Wind Deflection (D)	$D = \frac{WZ}{V \cos \Omega} D_{ow}$	6.2 minutes	6.5 minutes

Table No. 7D

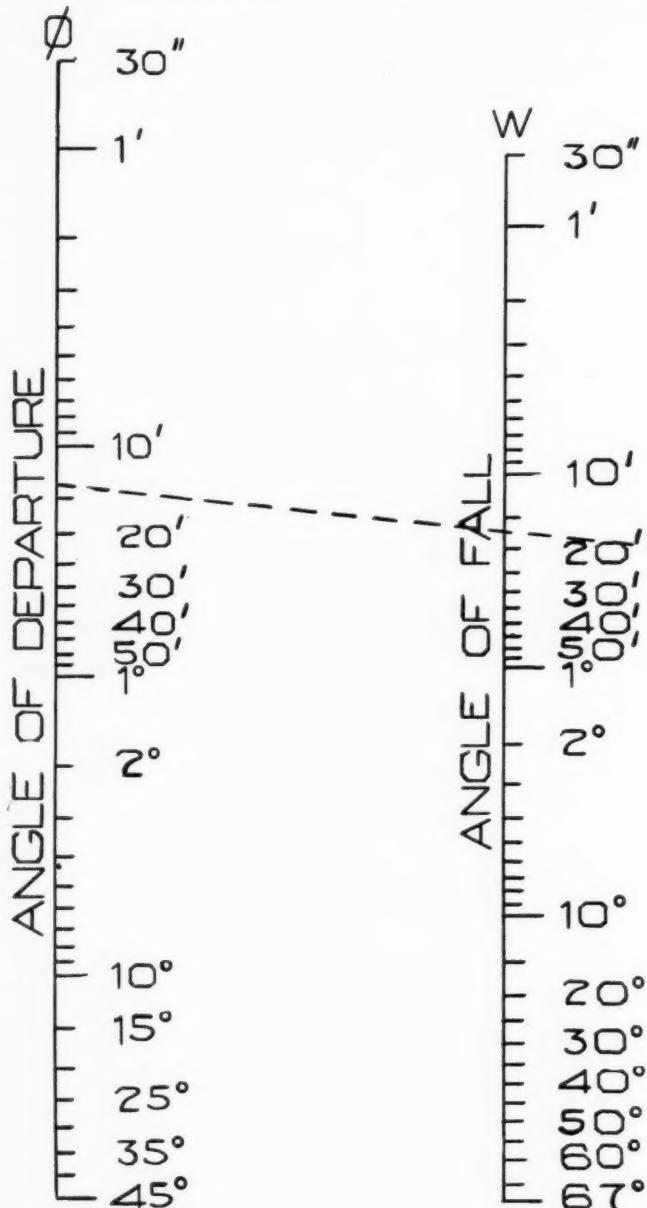
TRAJECTORY CHARACTERISTICS OF THE .30-06 SPRINGFIELD 172-GRAIN 9° BOAT-TAIL BULLET AT A RANGE OF 1000 YARDS STARTING AT A MUZZLE VELOCITY OF 2700 FEET PER SECOND AGAINST A 10-MILE CROSS WIND

Characteristic	Formula	Calculated Result	Chart Reading
Ogive			9
Coefficient of Form (i)			.465
Ballistic Coefficient (C)	$C = \frac{w}{id^2}$.56	.56
Muzzle Energy (E)	$E = \frac{MV^2}{2}$	2780 foot pounds	2800 foot pounds
Value of Z	$Z = \frac{X}{C}$	5360	5400
Remaining Velocity	$S_u = Z + S_v$	1368 foot seconds	1360 foot seconds
Angle of Departure (Ω)	$\sin 2 \Omega = AC$	37 minutes	38 minutes
Angle of Fall (w)	$\tan w = B' \tan \Omega$	58 minutes	1 degree
Time of Flight (T)	$T = CT' \sec \Omega$	1.58 seconds	1.8 seconds
Height of Trajectory (Y_o)	$Y_o = HX \tan \Omega$	120.9 inches	120 inches
Wind Deflection (D)	$D = \frac{WZ}{V \cos \Omega} D_{ow}$	7.9 minutes	8.5 minutes

EXAMPLE: Find the Angle of Fall of the 172-Grain Frankford Arsenal 1925 National Match Bullet when fired from a .30-06 Springfield with a muzzle velocity of 2750 foot-seconds over a range of 500 yards.

Angle of Departure (θ) = 14°
 Value of Z = 2750
 Muzzle Velocity (M. V.) = 2700

- FIRST STEP — Locate Value of 2750 on Upper Axis for Muzzle Velocity
 SECOND STEP — Locate Value of 2750 on Lower Axis for Muzzle Velocity
 THIRD STEP — Connect these two lines with a straight line, shown by dotted line on chart
 FOURTH STEP — Locate value 2700 on Z Axis
 FIFTH STEP — Locate corresponding values of 2700 on muzzle velocity line for value of 2750. This is accomplished by locating 2700 on Muzzle Velocity Lines 2500 and 3000 and connecting the two points shown by broken line on chart. The intersection of the broken line and the dotted line is the point desired.
 SIXTH STEP — Connect the value 2700 located on the Z Axis in Step Four with the point of intersection of the corresponding value of Z and the muzzle velocity value of 2750, and carry this line to the right until it intersects the Reference Line, giving Line No. 1 on chart
 SEVENTH STEP — Locate Value of 14° on θ Axis
 EIGHTH STEP — Connect point located on θ Axis with point of intersection of Line No. 1 and Reference Line, giving Line No. 2 on chart.
 NINTH STEP — The intersection of Line No. 2 with the w axis gives the required angle of Fall, 17°-30"



GIVEN: Angle of Departure (θ)
 Value of Z
 Muzzle Velocity (M. V.)

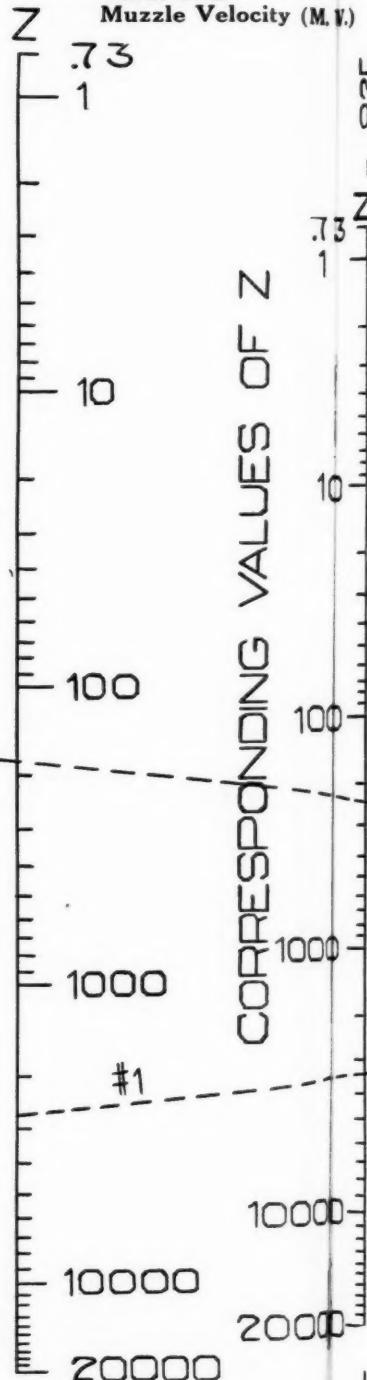
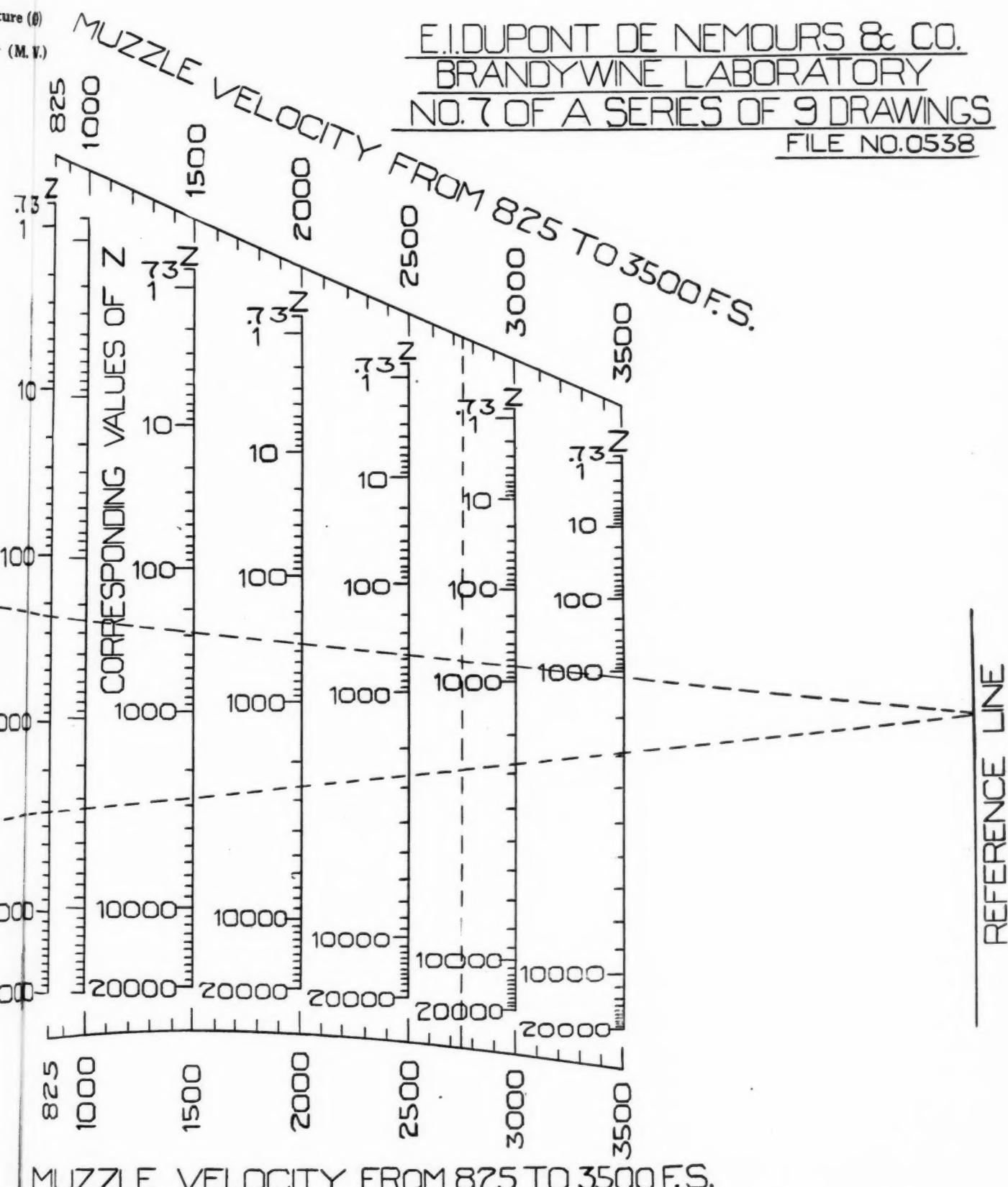


Chart for Determining Angle of Fall

E.I.DUPONT DE NEMOURS & CO.
BRANDYWINE LABORATORY
NO.7 OF A SERIES OF 9 DRAWINGS
FILE NO.0538



Exterior Ballistics

(Concluded from page 17)

and has been expanded to include readings from Drawing No. 7 of values for the angle of fall of the various bullets listed.

Tables Nos. 7C and 7D which are trajectory tables for the .30-06 Springfield 172-grain bullet over a range of 800 yards and of the same bullet over a range of 1,000 yards respectively, are included as additional examples of the construction of trajectory tables by means of these charts.

(To be continued)

Pistol Play

(Concluded from page 15)

somewhat akin to "fanning" (but in which only one hand is used) that he terms "slip-shooting." Using this method, Burro Puncher is today fifty per cent faster than when he was fifteen years younger and using the gun in the ordinary manner with trigger.

About a year ago, in THE AMERICAN RIFLEMAN, Charlie Finn informed the shooting world that Mr. Newman had succeeded in speeding himself and his gun up to making four hits on his flying cans. (I happen to know that a few of his readers, at least, were inclined to question that statement, believing it utterly impossible to function a single-action gun with such rapidity. If they felt that way about four shots, I fear that I shall be everlastingly condemned by them for my next statement). Last time I had the pleasure of talking with Mr. Newman he informed me that he now often fires five and, not infrequently, six shots before the tossed can reaches the ground, but has thus far not been able to put more than four bullets through the can. Until some one beats that, my hat is off to John Newman as the best living rapid-fire artist with a single-action gun.

Practical offensive and defensive manipulation of the S. A. Colt from pocket or concealed holster is another game at which Burro Puncher excels. He is apt to produce one of his triggerless revolvers from most anywhere about his person and he is also prepared, if he deems it expedient, to fire through a pocket, not even taking time to draw. Imagine yourself his adversary when he has you "covered" with one or two of his slip-shooting .45's. You might succeed, somehow, in shooting him or perhaps some one else gets him from behind. Even if he is instantly killed or rendered unconscious, what happens when his thumbs relax their hold on those stubby hammer spurs?

In aerial shooting and in perfecting various stunts and methods of pocket drawing and firing, Newman and his friend Dr. Snively have together expended a tremendous amount of ammunition in all sorts of loads. Snively uses a short, remodeled New Service Colt .45 mostly, while Newman sticks to the S. A. Their loads (except, of course, when using the .22's) are almost invariably of the heaviest

Table No. 7B

Caliber	Bullet	From Drawing No. (1)		From Drawing No. (2)		Z. 300 Feet	Remaining Velocity in F.S. at 300 Feet	Angle of Departure in (4) Min. when X = 300 ft.	Time of Flight in Sec- (5) onds over Range of 300 Feet	Maximum Height of Trajectory in Inches over Range of 300 Ft.	Angle of Fall in Min. (7) when X = 300 Feet
		Muzzle Velocity	Ogive	Dia. of Flat Nose in Calibers	Coefficient of Form						
.22 Long Rifle	R. A. 40-gr. Lead	1070	2	..	0.85	0.222	.197	2290	930	17	0.34
.25-20 W.C.F.	R. A. 60-gr. H-S	2200	4	0.10	0.85	0.258	.152	1975	1700	4.2	0.17
.25-20 W.C.F.	Peters 60-gr. H-S	2200	4	0.08	0.75	0.278	.172	1750	1750	4.0	0.17
.25-35 W.C.F.	Peters 117-gr. H-S	1975	4	0.12	1.0	0.258	.228	1300	1650	4.7	1.8
.250-3000 Savage	Western 87-gr. H.P. Ex.	3000	6	0.08	0.70	0.258	.267	1120	2630	2.0	0.11
.250-3000 Savage	West'n 100-gr. Lub. S.P.	2850	4	..	0.60	0.257	.360	830	2580	2.2	0.12
.270 Winchester	W.R.A. 130-gr. Ex. Pt.	2700	6	0.49	0.49	0.277	.496	600	2500	2.4	0.12
.30 Newton	West'n 150-gr. Lub. Ex. Pt.	2500	8	0.07	0.70	0.208	.385	750	2280	2.9	0.14
.30-06 Spld	R. A. 110-gr. H-S	3500	6	..	0.70	0.268	.237	1260	3050	1.6	0.095
.30-06 Spld	West'n 150-gr. Lub. Ex. Pt.	2700	6	0.10	0.70	0.308	.323	925	2410	2.5	0.12
.30-06 Spld	R. A. 180-gr. H-S	2700	8	..	0.49	0.208	.560	540	2520	2.4	0.12
.30-06 Spld	West'n 180-gr. Ex. Pt.	2700	6	0.10	0.70	0.308	.385	780	2460	2.5	0.12
.30-30 W.C.F.	Peters 170-gr. M.C.S.P.	2000	1.5	..	1.0	0.205	.261	1150	1710	4.4	0.17
.30-40 Krag	W.R.A. 220-gr. M.C.	2000	1.5	..	0.95	0.208	.345	865	1780	4.5	0.18
.32 Colt Auto	R. A. 71-gr. M.C.	825	1	..	1.10	0.312	.345	3150	710	27.5	0.45
.32 W.C.F.	W.R.A. 80-gr. Sup-S.	2000	4	..	0.75	0.311	.158	1890	1550	5.1	0.18
.32 Win. Spld	R. A. 110-gr. H-S	2500	6	0.10	0.70	0.321	.218	1370	2160	2.9	0.13
.32-40 W.C.F.	W.R.A. 165-gr. M.C.S.P.	1500	3	0.17	1.15	0.320	.209	1425	1240	8.4	0.24
.35 Remington	West'n 200-gr. Lub. Ex. Pt.	2000	4	0.10	0.75	0.355	.296	1010	1750	4.6	0.18
.38-55 W.C.F.	Peters 225-gr. M.C.	1700	2	0.20	1.25	0.376	.205	1450	1395	6.3	0.22
.40-65 W.C.F.	R.A. 260-gr. Lead	1420	2	0.22	1.25	0.405	.280	1650	1160	9.2	0.24
.40-70 W.C.F.	R.A. 330-gr. Lead	1580	3	0.23	1.15	0.405	.248	1200	1190	9.7	0.25
.40-90 Sharps	R.A. 370-gr. P.P.	1400	1.5	0.18	1.25	0.405	.257	1180	1205	9.1	0.24
.45-70 W.C.F.	R.A. 405-gr. Lead	1360	1.5	0.20	1.25	0.459	.219	1360	1160	10.0	0.27
.45-70 W.C.F.	W.R.A. 300-gr. M.C.S.P.	1890	1.5	0.25	1.35	0.456	.153	1950	1460	5.8	0.20
.45-90 W.C.F.	W.R.A. 300-gr. Lead	1550	2	0.25	1.25	0.458	.162	1840	1220	8.5	0.24

kind, the object being to get all the knock-down punch possible. Newman, I know, never uses smokeless powder, loading either with semi-smokeless or black—usually the latter—in combinations of powder and lead the mere contemplation of which would sprain any ordinary man's wrist. Burro Puncher says that when he puts in his pockets two .45 caliber, two-inch barrel, slip-shooting guns loaded with cartridges containing forty (40) grains of black powder and three hundred (300) grain lead bullets, he is the best armed man in the United States. Who doubts it?

Metropolitan League Shoot

THE fifth annual tournament of the Metropolitan Rifle League will be held at the armory of the old 47th regiment at Marcy Avenue and Lynch Street in Brooklyn, N. Y. for four consecutive Saturdays commencing on February 13. The match will be shot indoors, any sights, any .22 rifle, prone, at a distance of 100 yards on the standard American target with 4-inch bull's-eye.

The league has guaranteed a distribution of prizes totalling \$500 in cash merchandise and medals, but if entry fees permit the prize list will be increased.

The preliminary match will be shot on the first three Saturdays and is an unlimited entry affair. For this match there is an entrance fee of \$2.50, a range fee of 50 cents and a target charge of 25 cents a target. Best ten targets count.

The championship match will be shot on March 6. It will consist of 50 consecutive shots. The entrance fee is \$3.00, the range fee 50 cents, but there will be no charge for targets.

"Roll Your Own"

(Concluded from page 16)

very much like that of a .22 long rifle. The velocity should be, I judge, about 850 to 900 f.s. and should be a much better killer than the .22 long rifle due to the heavier bullet. Have not shot any game with it yet. Use it mostly to keep in practice with the big rifle when I can't get outside.

Another load which I loaded a few cartridges of the other day but have not had the opportunity to test yet, is the .32-20 S. P. 115-gr. bullet and 52 grains du Pont No. 17½ powder. Velocity 2840 f.s. If accurate it should be almost as good for "chucks" as the Remington Hi-Speed 110-gr., and very much cheaper as the bullets are only 90c per 100. I do not know the pressure this gives, and in loading, consider it best to cut the powder charge one grain. When I get this load tested out, I will know more about it.

Have lately gotten some B. & M. molds for the Squibb-Miller and the Squibb, gas check. I expect to have a lot of fun working up loads for these bullets and testing them out. They certainly look fine. The tools I have used for most of my reloading were the Old Ideal, but recently have been using the new Belding and Mull. They are good, cut the work in half and do it perfectly. They may look clumsy at first or rather unusual, but when used work so perfectly and easily that there is really no comparison with any I ever saw before.

I see now that the necessity for changing heads when re- and de-capping and sizing is done away with, the two heads now being combined in one.

I do not own a set of these yet, the ones I used were borrowed from a friend, but I certainly shall own a set before long.

The American Rifleman

EDITOR

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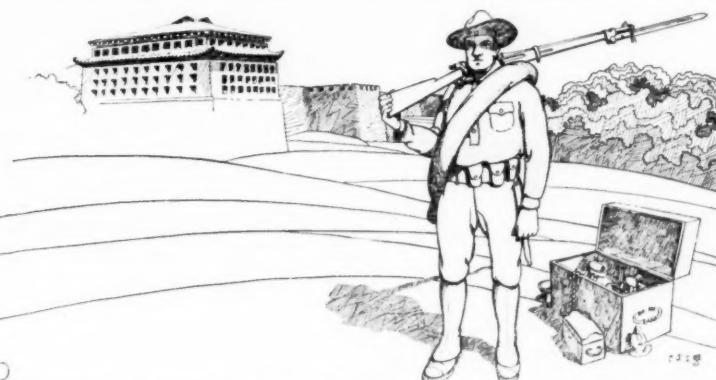
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BOXER RISING 1900

The Relief column to Pekin. An international affair if there ever was one. Americans, British, Japanese, Austrians, Germans, French, Russians and Italians all pushing forward to their beleaguered embassies.

After the entry into the Walled City looting broke out. From the days of Marco Polo a campaign in "Cathay" had been the dream of every Soldier of Fortune. For centuries the cities of Asia had been ruthlessly looted. The relief of Pekin marked the end of this practice.

The conduct of the American, British and Japanese troops was excellent but the Russians and Germans behaved shamefully. Art and religious relics of fabulous value were destroyed and priceless jewels were stolen, later to be sold for a song. Even the missionaries took a hand but naturally did so only to obtain funds to rebuild their destroyed schools and missions.



THREE was a time when the rifle and pistol shooters looked on each other as rank outsiders, when both regarded the shotgun expert with something akin to pity and when the shotgun artist had a low opinion of the man who shot anything except a scattergun. That was not as it should be. It has been responsible for the fact that the rifle shooters and

All Together Fellows! Pull! shotgun fans haven't paid as much attention as they should to legislative trend which eventually will take from the hands of the people of this country every sort of powder-burning weapon. It is responsible for the fact that the pistol shooters haven't put their shoulder to the wheel when the rifleman or the shotgun fan needed some support to keep his range or trap ground. Shooting men have been divided when they should have been standing together.

The meeting of the United States Revolver Association in New York on January 18, gave an indication that this situation is in a fair way toward being mended. There was a spirit of get-together displayed there which indicated that the pistol and rifle shooters are approaching an understanding which will result in the two Associations presenting a united front on all questions involving the development of shooting in this country.

The National Rifle Association offered space in its publication, THE AMERICAN RIFLEMAN, to the U. S. R. A. and the offer was accepted in the spirit in which it was given—a spirit of promoting mutual helpfulness and development of shooters—either of pistols, revolvers or rifles. When the offer was made there was a momentary revival of the old jealousy, the old suspicion—the suspicion that because the National Rifle Association promotes pistol matches it was seeking to undermine the U. S. R. A. The suspicion was fleeting; it was voiced with hesitation and apology, but it was there. It vanished before the frank statement that the N. R. A. promotes pistol practice because it believes in it; that it is anxious to have the U. S. R. A. increase its membership and develop; that it would be happy to see the U. S. R. A. developing rifle shots even as the N. R. A. is developing pistol shots; that it believes the duty of both organizations is to promote straight shooting, with any and every practical firearm.

That statement was sincere and it is repeated editorially here to get it on record.

The National Rifle Association is concerned only in promoting the development of shooters. It is as anxious to develop or have a sister organization develop good pistol shots as it is to create rifle shots. It realizes that more than half of the troops which served in the World War were armed with the pistol as their only means of defense. Therefore it extends to members of the U. S. R. A. all of those privileges enjoyed by its own members except where such privileges are restricted to members of the National Rifle Association by law.

It feels that this is received in the spirit in which it is given, the spirit of co-operation and helpfulness among shooting men for the promotion of the greatest of sports.

* * * *

THE opening wedge for a campaign to put an end to all civilian shooting has appeared in the House of Representatives. It is a bill by Representative Rubey, of Missouri, which, if passed, will bar from the mails any publication carrying the advertisement of a pistol or revolver manufacturer or dealer.

If the shooters of the nation do not rally and oppose this bill it will require only a few years for this **You're Next** measure to be followed by a bill barring rifle and shotgun advertising. When the reputable pistol and revolver manufacturer cannot advertise his wares he will be forced out of business. The criminal element, when the supply of imported junk gives out, will turn to rifles and shotguns. Sawed-off shoulder guns will serve the bandit and bank robber as well as the handgun ever served him. Then will come the legislation barring advertisement of these from the mails—and the passing of the makers of fine American rifles and shotguns.

Already, in States where drastic anti-pistol laws make the handgun hard to get, robbers are using shotguns and rifles sawed to pistol length—terrible weapons they are. And if the rifleman and the shotgun man leave the pistol fan to fight this battle alone they themselves will hope in vain for his support when the day comes—and come it will—that the rifle (*Concluded on page 22*)

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A Defense of English Rifles

By Chas. Askins

I NOTE an article entitled, "A Defense of English Rifles," in the December 1 number of THE AMERICAN RIFLEMAN, by a British legal authority. A reply followed under the caption of Editorial Comment. This editorial comment was evidently written by the Army, and therefore I am going to entitle this controversy "The Law vs. the Army." Having heard the pleas of both sides, the case has gone to the jury, consisting of all readers of THE AMERICAN RIFLEMAN.

I am only one member of the jury, of course, but being a Scotchman, far enough back, and supposed to be unprejudiced, I am giving my decision for what it is worth.

In the first place, the Law has scored against the Winchester Model 95, which is pronounced heavy and ill-balanced. The Army makes no defense of the old Winchester, and on this heading we will have to find in favor of the Law. The Winchester Model 95 is a hard looker, but it is a darned good rifle at that. Moreover, it is a prime favorite among colonial Englishmen all over the world. The writer gets hold of an English sporting magazine now and then, in which he reads of big game shooting in Africa, India, New Zealand, Australia, and South America. Likely as not the rifle mentioned will be the Winchester .405. Very few Englishmen ever make any complaint about this rifle after using it.

The Law has evidently had ample experience in big game shooting, always with English rifles. No one could hesitate for a minute in believing that he has accomplished precisely what he says he has with a Westley Richards .318. The Law has killed all kinds of African big game with this rifle, and seems to prefer it to larger bores, for elephant shooting. The jury of one is interested, seeing that the Law confirms what an American writer has declared about the .35 Newton, and as confirming his own personal belief that the .375 is big enough for any game in the world.

The Law was paddling through smooth water and steering a straight course, so long as he confined himself to telling of the execution he had accomplished with this gun and cartridge. But he voluntarily got among the breakers when he tacked into English ballistics. The Army was quick to see the opening, and landed with telling effect. Being a Scotchman, far enough back, and without prejudice, the Law will perhaps take my advice and never again mention the killing range of an English shotgun or the ballistics of an English rifle. I like things English, because a Briton always stoutly backs up his own country, right or wrong, and I do not want him to put himself into a position where defense is very difficult.

A Jew never gives the real price of anything he has to sell, because he knows that you will discount anything he says anyhow. It is pretty much the same thing with an English gun-builder advertising his output. He knows very well that if he says a cartridge has a velocity of 2800 feet, all Englishmen who are

onto the "advertising ropes" will give him credit for about 2500 feet, whereas, if he said 2500 feet in the first place, all the credit he would get would be 2250 feet. There is nothing whatever wrong about all this, once the customs of the country are fully understood. A man in the position of the Law ought to have known all about this, and never have taken a chance with a light blow which might bring a heavy wallop in return.

Really, we are surprised, though, at the inaccuracy of those English rifles, as proved by the Army. An eight- to twelve-inch circle to inclose ten shots at a hundred yards, doesn't look good to us. Neither does a variation in bore and fit of bullets. We have recently had some experience with this kind of gun, and don't want any more of 'em. The mystery is how the Law managed to kill game with rifles of this kind. It must be that Roy Riggs is right when he says that a fine shooting rifle is not needed for game shooting. Roy says that a rifle that lands somewhere in a six-inch circle at one hundred yards is as good a game rifle as though it put all shots into a one-inch. Maybe, after all, Mr. Riggs is right, though he has had a devil of a time making me believe it. All this again reminds me of the Englishmen Cottar mentions, who fired eleven times at a fifteen-inch lard can at one hundred yards, hitting it three times, with which target shooting excellence they were perfectly satisfied. I have always thought, in a dim way, that those English sportsmen couldn't shoot, but now, according to the Army, it was the rifles that couldn't shoot, and not the men. Here is proof: these same big game hunters who missed the lard can killed elephant, rhino, buffalo, and lions with the big four seventies. Maybe Roy Riggs is right about it, after all.

Now to sum up. The Law has proved that one American rifle is out of balance, clumsy, and poorly sighted. He has proved that an English rifle, by some makers, can be bought more cheaply than a high-grade American rifle. He has proved by his own experience that the very largest African game can be killed with a rifle of moderate bore, moderate power, and moderate accuracy.

In rebuttal, the Army has shown us that English ballistics are not to be taken literally. He has shown us that English rifles are poorly sighted, open sights with no adjustment for windage or for variation in center of impact due to changes in ammunition or to the gun's being shot by different men. He has shown us that English magazine rifles are friction bound in all working parts. He has shown us that English rifles are not bored and rifled to any particular gauge, but every rifle-maker bores his tube to suit himself, and sometimes he is easily suited. He has shown that English rifles are not accurate, but he hasn't proved that accuracy is necessary in a big game hunting rifle. He admits that the English are superior when it comes to making double rifles.

He proves quite conclusively that American ammunition is far superior to English ammunition and this is admitted by Law.

Now for the decision. We believe that in all magazine arms, even military, the Englishman would be well advised to purchase American rifles only—at least until such time as English gun-makers have recovered from the effects of the War. We further advise that when Britons prefer homemade arms for any reason, they at least purchase American ammunition for them—this advice applies to both shotguns and rifles. It is further decided that English rifle ballistics are correct, within three hundred foot-pounds minus. We further decide that where an American big game hunter requires a double rifle, he purchase it in England and not in America.

Submitted as the impartial verdict of a man whose family were Scotch, far enough back, and who has no Irish in him and no prejudice against or for things English.

You're Next

(Concluded from page 21)

and shotgun are to be legislated into a memory.

Every shooting man in the country should stand with the pistol shots in opposition to the Rubey Bill, which is now in the hands of the house committee on postoffices and postal roads. Write that committee now. Explain what the bill will lead to. Write your Congressman. Get your friends to write him. Only united action can save the shooting game.

The 270 Winchester

(Concluded from page 8)

base bullet. Nine or 10 grains of any of these powders gave fine results. I seat bullet one and one-half bands deep. All the above loads have good accuracy. B. & M. also make a gas-check bullet which I have never used, but am sure from my experiences with such a bullet in the .250-3000 that it can be driven 2000 f.s. with fine accuracy.

I have written the du Pont Company for information on full charges for the 270, but to date have not heard from them. Likely they have not worked the loads out yet. A letter from Peters Cartridge Co. a short time ago stated that they had not decided on the powder charge and also had not worked out a bullet, which will likely be of their Protected Point Expanding type. The Winchester cartridge is loaded with 56 grains of No. 15½, at least it looks like 15½, and it contains metallic tin. It is too coarse a grain for 17½.

The Winchester bullet is .2765" in diameter. The Western Tool and Copper Works bullets measure .277". Their bullet of 145 grains is practically the same length as the 130-grain Winchester, the point is not so sharp and has a longer bearing on lands. I hope to be able to try out some of these bullets, and also the new Peters soon, and if I find them anything of interest will let you know about it.

A Police Officer Speaks Up By S. J. Lanning

HERE appeared in the issue of December 15 an article by W. S. Davenport, "Police Pistol Experience." Mr. Davenport wonders why police do not contribute more to THE AMERICAN RIFLEMAN. Yes, why?

Speaking for myself, I must confess I have the art of saying nothing with immense seriousness, and perhaps there are brother officers who enjoy every page of our magazine (and count the days before the man with the leather bag will leave the next one) who are afflicted with the same ailment. Then again, with articles by such grand old men as Whelen, Askins, Hatcher and others who have spent a good portion of their lives on this subject of "guns and all the details," that a majority of us "nuts" can get off on the right foot, there is nothing left to us to write, other than our minute experiences.

The environment of the police officer brings him in contact with conditions where he must carry a weapon for defense and the performance of his duty. The style, caliber, and weight vary according to the opinion of the majority. The effect of such and such a caliber and bullet is what is wanted.

Unfortunately those who run afoul of the law are classed as human beings, and police who are fortunate enough to capture them are not permitted to use them for experimental purposes to determine the effect of such and such a caliber or bullet, although I believe there are brother officers who would feel justified in doing so with a certain type of criminal. If some of the sob sisters preaching reform had to risk their hide a half a dozen times to get one of this vicious type with money and a drag, for whom the various courts open the grates each time he is sent up for a stretch—in less time than you can recover from a bad cold he has made himself conspicuous in his old haunts and is up to his old racket, making his threats at you—I wonder what kind of reform they would preach? Such are the handicaps of many an officer, and his experience with the effect of bullets of various types is very limited. Funny, isn't it?

The effects of the various calibers such as an officer carries, in my experience vary. It is like the woodchuck argument in the sporting magazines.

A .32-20 from a Smith and Wesson at fifty yards brought a man to a halt. The bullet of soft-nose type, grazed the hip bone passing through and into his hand. He walked unassisted 150 yards to the call box.

I put that "pea shooter" away for ornamental purposes only. Other officers have had similar results where what are called partial disabling hits have been made. The .38 Specials have knocked their victims sprawling when spots of like disabling effect have been hit, while .45 calibers have had paralyzing effects on like spots.

A man was hit at thirty yards in the fleshy part of the groin with a .38 Special. His feet went out from under him as though he had slipped on ice, and there was no fight left in

him. I have also had officers tell of men shot through the middle who stood up and fought like maniacs.

So the .38 effects vary also. However, with a full load and square-shouldered bullet, I imagine a .38 Special would have the desired shocking effect. I would like to hear from some one on this type.

The majority of officers are armed with the .38 Special. Considering weight recoil of the .38 Army Special or Smith and Wesson, it is a good side arm for an officer. The ease with which the average officer can draw and shoot a .38, compared with a .45, gives that arm preference.

Not ten per cent of the general run of police can handle a .45 and it is a well-established fact that they can't hit a full-sized man standing still at fifty yards with a .38. So what would they do with a .45?

The Los Angeles Police Department has adopted the .45 Smith and Wesson Automatic Rim, if I understand correctly, and I think its sponsor chose wisely. The arm is neat, well balanced, easy to carry, and has light recoil compared with that of its big brother. The average officer should be able to handle this arm with the same ease as he would the .38 Special, and I don't know but what the shocking effect of that bullet would answer the purpose better than a .38 Special.

I have seen officers use their heavy .45 caliber and afterward I wondered if it wasn't moral effect they were after.

I have had little experience with the effects of the .45 caliber on human targets. In fact, I have seen only three who were hit with the .45 Colt. One was hit in the region of the heart, and went over the divide "pronto." Another was hit in the shoulder, and needed plenty of assistance and a lot of soft music to woo him back to normal. He never will be able to use his arm to any advantage again.

I had the good fortune of talking to the third one several months after his experience. He was a bright young man and at the time was a victim of circumstances rather than an accessory to the crime. He was hit in the groin from about thirty yards. The bullet just grazed the bone. His whole right side went numb, and it was possibly a minute before the muscles in his leg would respond. There was no great pain on impact, but in some way he just lost control and fell. It was paralyzing for a few minutes.

It seems that the .45 caliber or .44-40, or .44 Special, and .38-40 are in a class by themselves when it comes to shocking effect. But how many officers are capable of using them to any advantage? Many witnesses to the effects of the .38 Special can relate experiences with wide variations.

But when you talk with those who can handle one of the big ones and who have used them, invariably they have knocked the victim for a row of hospital cots or killed him.

Personally I like a .44 Special or .45 Colt as my side arm, and advocate that those who can use them properly, adopt them as a "pal." Some day, if called upon they may mean a continuance of your family's meal ticket.

To brother officers I might say, If you are

a member of the N. R. A., have a few application blanks in your pocket. Surely you come in contact with sporting blood, who will sign in a minute, if you just explain. Let's boost her, big boys.

More Shots at Soap

(Concluded from page 11)

was the first to go right on enlarging the hole the same as if the two bars of soap were one.

Shot No. 9. This is the .30-06 service bullet filed off to show a pencil point of lead, 150-grain. It is as bad form to use this kind of bullet as it is to lead a sneak, and the results of both are often astonishing.

Shot No. 10. (One cake of soap only.) Springfield rifle, Frankford arsenal bullet, 150 grains, with point filed off and a hole 1/32 inch drilled in point 1/8 inch deep. It opened up like three-of-a-kind, and showed that it was still doing business at the old stand when it hit the board.

The soap shows the exits of the bullets, while the board shows the front side. I turned the board this way for the picture show so as to show the splatter, or rather absence of splatter, of lead and jackets around the holes. The board was comparatively smooth, and the dents shown therein are where the hard dry soap was driven into the wood. There was a marked absence of the parts of the bullet that are supposed to fly to the lungs, head, and paunch, when you hit a deer in the heart. There were not a dozen pieces of metal stuck in the board.

The largest of the ten holes where the bullets came out the back of the board was just big enough for me to put in the end of my thumb.

The holes in the soap are not an exact index to what the bullets are doing. The print does not show this plainly, but it is a fact that the exit on the first bar of soap was considerably larger than the entrance hole on the second bar. Likewise, the hole was larger in the interior of the bar where the soap was more moist than it was at the exit. The result is the same in flesh. All you who have shot full-grown big game know that a bullet can enter with a small hole, blow the heart wide open, wreck three hundred and twenty acres of lungs, ruin the meat of the shoulder on the northeast corner, and then come out on the far side like a 3/8 drill.

The copper-jacketed bullets with the hollow point made for slow expanding (California make) may be all right for some purposes. It would be ideal if you had to shoot through a sixteen-inch spruce tree to get to the heart and lungs of your buck. But this is not necessary around Santa Fe, for most of the deer down here will get from behind the tree if you ask them to.

It will not be long till we have a bullet for every purpose, and then the dyed-in-the-wool nut who cannot buy what he wants, can take his bullets to the dentist and have the cavities drilled to order—cylinder bore, full choke, concave, convex, or helical, anything to suit his exacting taste.

Still More Talk About .45's

By Alfred J. Secunde

I AM pleased to note that the old epidemic has broken out again. This refers to the number of articles by divers handgun hombres, appearing recently in the G. A. R. (Great AMERICAN RIFLEMAN). The list is climaxed by the neat article by A. J. Palmer.

This subject is the very one I dote on. I kind of expressed my views thereon in the January 1 issue, and was some elated to note that with my letter to Major Hatcher and his reply we annexed all the space of the Dope Bag between us. However, seeing as how the water is still fine, I crave permission to flop in again.

I noted that Mr. Palmer drew three aces, as follows: Colts .45 N. S., Single Action, and Automatic. Too bad he didn't draw the fourth ace, the Smith & Wesson .44. I shuffle the four aces again, and find them lined up this way: S. A., Automatic, S. & W. .44, and N. S. Sorry to see Mr. Palmer's pet weapon playing rear guard that time. Have had experiences with all four aces, so I will hereby prate their fine points in order.

My favorite weapon is the Single Action. That gun was made for heavy duty mainly. There may be some models more refined socially and which know more parlor tricks, but the S. A. is like an ax lying beside a tool box. If you don't get results with the tools, fall back on the ax.

Mr. Palmer deplores the fact that the hammer ear of the S. A. gets in his eye when he shoots. Well, that hammer falls fairly fast as is, and if the last visioned recollection showed the sights lined up all right, it's a pretty safe bet the shots went down that way somewhere. Mr. Palmer claims he likes to call his shots. I have a pretty big frame on me, and can hold down a gun with the next one, but I always find my S. A. jumping some anyhow. That's one of the ways I have of telling the gun went off. If the hammer ear were not in the way, I'd find my gun elevated toward a higher altitude anyhow, so what's the use of seeing the sights after a shot?

Now as to the S. A. being slower on the reload. If I didn't get what I went after with the five shots I carry in my hogleg, I'd lop off the horizon pronto, till I could get more practise. Also, if what I went after was too numerous to get with five shots, I wouldn't hesitate to reload. I wouldn't start in the first place. The fact that the frame is rigid, etc., with the rod ejector, is one of the S. A.'s claims to holding up longer and standing more abuse. The more parts and the smaller parts you get into anything, the less reliable it is.

As to the hammer notches. A good way to keep the hammer from shifting into neutral is to go after those notches and file both the safety (so called) and the loading notches, stopping not till you have a perfectly smooth surface where those notches once were. They're not needed. The safety notch is not safe, and as for loading, you can hold that gun in your left hand, holding the hammer back to loading position, and still find an idle

finger to turn the cylinder for you while feeding it with the right hand.

In trimming the notches off smooth, you have your choice of two styles of shooting. You snap shoot by giving a quick whiplike snap to the gun, thumb hooked on hammer, and release hammer before it is quite full cocked. The quick flip of gun is necessary to spin the cylinder over to the next chamber and lock notch. The hammer has nearly 1 1/4-inch fall from full cock, and in snap shooting let the thumb release hammer about 1/4 or 1/2 inch from full cock. Not having any other notches to stop it, the hammer will fall full, and there you are, snap shooting without having to remove trigger. A little practice is necessary, though, for this. In removing the surplus notches, you can then also trim down the full cock notch to any weight of pull without danger of tangling with the other notches when shooting.

As to the screws on an S. A. loosening. I find that a small piece of newspaper placed along the threads when screw is inserted will hold that screw tight indefinitely. With a little practice an S. A. can get into action from a holster mighty quick. My memory slides back to a camp-fire way out in Southwest Utah a year or so ago. I was making a saddle trip into the hills with some ranch friends. We camped one night near Bryce Canyon. Along about 9 p.m. I was squatting by the fire, deciding whether to take a fresh chew or turn in, when a mountain lion let loose one of those blood-freezing yodels in a tree directly behind me. Old S. A. fairly telegraphed itself into my hand. No, I didn't get the tree cat. Didn't even see his headlights, and I did not go out to look for him. I hadn't lost any tree cats. After that, I believed in lightning draws, because I had made one myself.

Now, as to the .45 Automatic, Mr. Palmer says it must be kept religiously clean to function. Not so. I find that you can let quite a bit of dirt mingle with the action and still get results. The Automatic can stand every bit as much dirt in it as the New Service, and the S. A. twice as much as both of them. Throw a handful of nice desert sand into each of them. You'll probably find the N. S. dead, the Auto dying, and the S. A. going strong.

Another crack at Mr. Palmer's pet N. S. weapon. I have a big hand, but find I can't get a real thrill out of working that N. S. action. The trigger is too close to the front sight to suit me for D. A. work, and using it single action you may better have an S. A. and not drag all those D. A. parts around with you when cocking. As to the simultaneous ejecting and reloading, I disposed of that subject up ahead somewhere.

Why not the S. & W. .44 or the S. & W. 1917-45? They are pretty near man-size cartridges, and then the frame and action on the S. & W. is much smaller and much better to handle than the N. S. I sure admire the way those S. & W.'s are built.

The Colt DOES seem to hold on the mark better at first, using it single action, but this is soon matched in an S. & W. when you get to know it. After a little I found myself

putting 'em in just as easy with an S. & W. besides feeling a certain amount of satisfaction in the superior mechanism.

Now that this important subject is disposed of, I'll finish by agreeing with Mr. Palmer's statement "Every man to his own guns." Here's looking for a lot of further argument along this line. I like it.

Lugers—and Lugers

(Concluded from page 10)

rings. I have seen a few Lugers which were captured during the War with this marking—no doubt they were intended for this country when the War broke out—but never have I seen any War-time or post-War Lugers with this insignia.

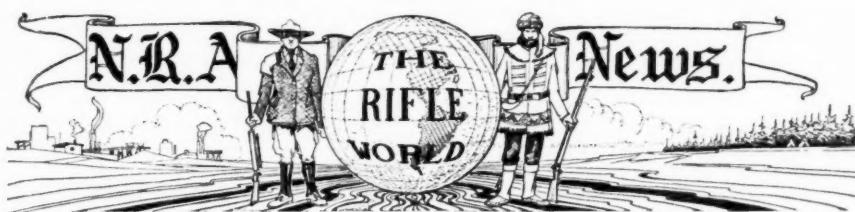
The ends of all pivots and pins, particularly the ends of the trigger pivots, were turned off smoothly in pre-War Lugers, but in post-War Lugers these are usually filed to the proper length. Practically all pre-War pistols had grip safeties, which are not found on the new Lugers, although the trigger bars on many post-War Lugers have cuts for the safety sears of the grip safeties, but use instead a safety sear coming in at a different angle.

The letters and numbers stamped on pre-War Lugers were sharp and clear, but those now seen are rather messy. The pre-War serial numbers consisted of numbers only; now they are a combination of numbers and letters.

The short-barreled Lugers made before the War had no blocks for attaching shoulder stocks; such blocks appeared only on the grips of the longer-barreled pistols. Present-day Lugers all have these blocks, even on the 3 1/4 and 4-inch barrel pistols.

Before the War the .30 cal. and 9 mm. Lugers were seen in many different barrel lengths. In the .30 cal., Lugers with 4 1/2 and 6-inch barrels seemed most popular, but 3 1/2, 8, and 12-inch barrels were not uncommon. The 9 mm. pistols seemed divided in popularity among the 4, 6, and 8-inch barrels. But now one seldom sees new Lugers except in the .30 cal. with 3 1/2-inch barrels and the 9 mm. with 4-inch barrels. These sizes, it seems, constitute a sort of "hock shop special" and are sold, most frequently, in shops from which no well-informed sportsman would buy an arm. Some of the better classes of sporting goods stores carry post-War Lugers in the longer barrel lengths, but these seem to cost too much money for the average buyers of post-War Lugers, and are not popular with those who know and appreciate pre-War Lugers, and are let rather thoroughly alone.

A last difference is found in the wood of which the grips are made. Before the War, these, and the wood on the ends of the magazines, were made of American black or Circassian walnut, which do not grow in commercial stands in Germany. These pieces are now made of German beech, or of even more inferior woods, lacking the colorful luster of genuine walnut. Any forester or wood technologist, who is at all experienced in microscopic wood identification, can readily distinguish between these various woods if the owner of a pistol is unable to do so himself.



Conducted by C. B. Lister

Will Newspapers Publish Articles About Rifle Shooting?—Emphatically, Yes!

By M. E. McManes

DURING the past few years it has been the writer's privilege (?) to supply the local papers with news of local events in the shooting game. At first this news was given "in outline" only, it being preferred to let the sport editor prepare the article in form and size to suit himself.

It was soon learned that while most editors and near editors were almost human editions of walking encyclopedias, yet there remained some things in the sport of rifle shooting with which they were not familiar.

To offset the possibilities of error in wording and technical points, the practise was started of furnishing complete articles, typewritten, assuming that what was readable to the writer would be acceptable to others. From that time the articles appeared just as presented.

Not wishing to overdo the privilege, the copy was always given to the paper while fresh as news, and as early in the day as possible. No advantage was taken of the desire for news by overwhelming the paper with copy. The articles were made brief and to the point. Sometimes individual scores in matches were given when other matter did not make a long-drawn-out article.

We have learned that short copy at irregular intervals gets better place and more attention from the editor and more comment from readers than any other form of rifle news.

The desire on the part of newspapers generally for news of rifle shooting was not so well known to the writer until the past few weeks, when sort of a feeler was sent out to various papers over Ohio as to the desire concerning news of the Ohio Championship Rifle Matches that are to be held in Columbus, February 20, 21, and 22.

The response was instantaneous and unanimously favorable. The result is that newspapers all over Ohio, both large and small, are carry-

PROMOTING THE GAME IN HAWAII

The Hilo Rifle Club, down in Hawaii, seems to be having no trouble in keeping interest alive among the local Nimrods, as the following letter from its secretary plainly indicates:

Our club has just closed a very successful year's work, by record shooting over the "A" course in which we qualified three as Expert, four as Sharpshooters, and nine as Marksmen. We had the luck of wet and windy weather for this shooting; also a few of our good men were absent because of business or other reasons.

ing news of these events, and where space permits, the articles appear as presented to them.

Co-operation of this kind is what makes rifle shooting in Ohio so popular. The writer feels safe in saying that Ohio has more real target shooters than any other State in the Union, and with its present push and enthusiasm will continue to maintain this lead against all comers.

The moral of this squib is this: If all rifle clubs will pick out some one member best qualified to present in readable form, the activities of their marksmen, and get the copy to the editor as early as possible while the news is really news, there is scarcely a newspaper in the United States that will not be glad to print it.

If clubs all over the country would only take advantage of this opportunity for advancement, an opportunity that does not cost them a single penny, the rifle game would take on growth and energy by leaps and bounds.

Just read the following, then ponder awhile.

In a recent communication to the writer from Colonel Birdwhistle, who is secretary of the Dominion of Canada Rifle Association, the information was imparted that over 400 teams would participate in their indoor matches this present season.

A program for Mr. T. Young, secretary of the Toronto Indoor Rifle League, shows there are ten clubs in Toronto alone.

We of the U. S. A. like to delude ourselves into believing we are a "nation of riflemen." We are quite imaginative.

In the coming Ohio championship matches a team of twenty men from Ohio will be pitted against a like number from the Province of Ontario.

In a measure we are playing their game, as the conditions call for iron sights at 75 feet.

We hope to win, but if we lose we will have the satisfaction of knowing that we are up against a real foe, worthy of his laurels.

During the year we shot eleven matches with other teams, winning eight and losing three, as follows:

On January 25: match with the Hilo National Guard Cos., Ranges 200 and 300 yards, "A" target, 10 shots slow and 10 shots rapid fire at each range, National Match rules, 8 men on a side.

Guard score 1193, Club score 1162; Guard won by 31 points.

On February 8: second match with Hilo National Guard over 500 and 600 yard ranges, "B"

target, National Match positions, 10 men on each team.

Club 868, Guard 858: Club won by 10 points.

On March 15: third match with National Guard, at 200 yards over the "D" course, 10 men a side, 10 shots in each position.

Guard 2127, Club 2122; Guard won by 5 points.

On May 3 and 17, teams of 10 men each chosen by the president and vice-president shot off a match over the 200, 300, 500, and 600 yards ranges, 10 shots per man slow fire over each range, and 10 shots rapid fire on the 200 and 300 yard ranges, targets, positions, and time as per National Match rules.

President's team 2036 points, vice-president's team 2016 points; 20 points difference.

On May 24 there was held an individual match over the same six ranges, with 18 men firing.

A. J. Williamson came out first with 259, E. Searle second with 251, and W. C. Foster third with 240.

In May, June, and August, the Club was fortunate in being able to have a number of matches with various ships of the U. S. visiting fleet.

On June 14, we had a match with a team off the cruiser "Marblehead," 10 men a side, ranges 200 yards slow and rapid fire, National Match rules.

Club score 1167, "Marblehead" score 823; Club won by 344 points.

On June 14 a team from the 11 Destroyer Squadron was met, over ranges 200 yards slow and rapid fire, and 500 yards slow fire, 10 men a side, National Match rules.

Club score 1806, Squadron score 1583; Club won by 223 points.

On June 20 an 8 man team from the battleship "West Virginia" was met, shooting 200 and 500 yards slow fire, National Match rules.

Club score 658, "West Virginia" score 544; Club won by 114 points.

On June 21 a triangular match was held with teams from the battleships "Colorado" and "West Virginia," ranges were 200 yards slow and rapid fire, and 500 yards slow fire, National Match rules.

For the "Colorado" 20 men shot, for the "West Virginia" 14 men, and for the Club 12 men, the 10 high scores from each outfit to count in the match.

"Colorado" score 1217, Rifle Club score 1208, "West Virginia" score 1068; "Colorado" won by 9 points from the Club, and 149 from the "West Virginia."

On August 9, a team from the destroyers "Reno" and "Faragut" was met, 10 men a side, 20 shots each at 500 yards.

Club score 847, Destroyer team score 718; Club won by 129 points.

A pistol match was also shot with this team, and the Club won by 104 points.

On September 20, a match over the "D" course was shot with the Maui National Guard, whose companies were in training camp at Hilo, 10 men a side.

Club score 2097, Maui N. G. score 1868; Club won by 229 points.

On September 27, a pistol match was held with the same team, 5 men on a side, over the regulation course.

Club score 1482, Maui N. G. score 1404; Club won by 78 points.

On July 12, the members of the club shot for the "Lucas" challenge cup, 10 shots at 600 yards (no sandbag). This cup was won by Captain R. F. Fairchild, with a score of 47. It was a bad day for shooting, and very few good scores were made.

The season was finished by shooting for record as before mentioned.

The members of the club feel that they have had a full and pretty successful year's shooting.

As you will readily understand, the matches with the Fleet teams were very greatly enjoyed, especially the triangular match. The sailors were handicapped by lack of practise, and we were fortunate in winning so many of them.

For the courtesies and kindness shown this club by your Department during the year, we are very grateful and beg to thank you kindly, and in closing wish you all the season's greetings.

HILo RIFLE CLUB
A. J. Williamson, Sec'y.

* * *

HERE IS A SLOGAN FOR YOU

MANY successful commercial enterprises have been built around a good advertising slogan. The Fredericksburg Rifle Club of Fredericksburg, Texas, in addition to having one of the best equipped organizations in the country, has a slogan neatly printed across the bottom of its attractive letterhead, which slogan might be adopted successfully by any or all civilian clubs. Here it is: "To Improve Marksmanship—Create Good Fellowship and to Entertain."

In these nine words we have the gist of successful civilian rifle club operation. Whether or not you have progressed to the point of a letterhead of your own (which, by the way, is a good idea), you might well adopt this slogan as your battle cry, and build your club program with this idea always in mind.

* * *

ANOTHER LIVE-WIRE OUTFIT FOR OHIO

THE following letter from the secretary of the recently incorporated Northeastern Ohio Gun and Country Club is evidence of the strides this organization is taking toward becoming one of the "Buckeye's Best":

"Dear Sir: This club desires to thank the N. R. A. for its prompt attention and all the information, etc., which accompanied your letter of Dec. 14, 1925. We have not yet received the 'Certificate of Affiliation,' and hope that it will come forward in the near future so that we may display it in the lounge of our new indoor range.

"Our present plans and appropriations made for the indoor range, contemplate one of the most convenient and attractive places for gallery work ever undertaken. Present indications are that as soon as this range is open (sometime this month) all the proposed ten targets will be in use much of the time every day.

"In the communication from the D. C. M. of Dec. 17, 1925, it was suggested that we make the bond in the sum of Three Hundred Dollars. Anticipating approval of the extra material for which we are asking, you will observe that we have made the bond in the sum of Five Hundred Dollars.

"This club is *not* an experiment. It has es-

tablished itself firmly, owns its own property and club house overlooking the valley in which its outdoor ranges are located, and is carrying on negotiations for the purchase of the entire tract, including those ranges. A glance at the list of members in the booklet which is inclosed is convincing of the ability of this club to carry its plans into execution.

"Again referring to the indoor range, I cannot stress too strongly the urgency, first, of approval of our requisition for additional material, and second, for immediate shipment thereof. This indoor range is the answer to a group of local riflemen who are not particularly interested in high power shooting or in the Country Club House phase of our activities, but who are deeply interested in the small bore game and who will immediately enter this club when the indoor range is completed.

"The membership which is now near the two hundred mark (an additional list will go forward to you in the near future) will reach five hundred by spring, and will doubtless be nearly one thousand soon after the summer outdoor season has got under way.

"We are rounding up many of the older shooters who have been lost to the sport during recent years for many reasons, and we are building up a wonderful following among the boys who will be the sharpshooters and experts of tomorrow.

(SIGNED) "F. E. LOCKE,
Executive Secretary."

* * *

PIQUA DEFEATS DAYTON

IN a match on the Piqua Rifle Club range, the local shooters defeated a visiting team from the McCookfield Rifle Club in a sitting position match, by the narrow margin of one point. Teams of seven, twenty shots per man, Piqua, total 1329, Dayton, total 1328.

It is to be imagined that the atmosphere was more or less electrical on the range along toward the close of this hard-fought competition.

* * *

OHIO RIFLE LEAGUE

THE Ohio Rifle Championship Matches will be held on the ranges of Ohio State University, February 20-22 inclusive.

Booklet programs giving full details may be obtained from E. M. Farris, Secretary, Crestline, Ohio; S. W. Teague, President, 403 Clinton Building, Columbus, Ohio; or Dr. M. E. McManes, Chairman of the match committee, Piqua, Ohio. Clubs have been requested to do their utmost to obtain donations of prizes, either cash or merchandise, for the matches. A large number of prizes already have been obtained.

The schedule of matches follows:

Province of Ontario, Canada, versus State of Ohio. Post Match. Twenty men on teams. Ohio team picked by qualification at Columbus. Seventy-five feet. Prone. Iron sights. Fee: \$1.00.

State of Iowa versus State of Ohio. Post Match. Twenty Ohio men picked by qualification at Columbus to make team. All positions. Any sights. Fifty feet. Entry fee: \$1.00.

Columbus Dispatch Tournament. Fifty feet. All positions. Any sights. Each position and the aggregate to be made a separate match. Fee: \$1.00.

Ohio State Championship. Special prize for champion of Ohio at fifty and seventy-five foot ranges. Iron sights at 75 feet; any sights at 50

feet. Prone at 75 feet; all positions at 50 feet. Fee: \$1.00.

Teams from Pennsylvania Railroad. Employees from Ohio versus Terre Haute P. R. R. Club. Conditions to be announced later.

Championship of Pennsylvania Railroad. Unofficial championship shot among those employees present at these matches.

Women's Championship. Open to any woman or girl. Fifty feet. Any sights. Prone. Fee: 50c.

Unlimited Re-entry: Fifty and seventy-five feet. Iron sights at 75; any sights at 50 feet. Fee: 25 cents per card.

In all the above matches cash and merchandise will be given as prizes. Full details will appear in the program.

* * *

ALBERTSON TO RUN KIRK'S

ANNOUNCEMENT has been received that B. S. Albertson will take charge of the business founded by the late W. Stokes Kirk. Mr. Albertson, it is stated will alter the policy of the company to include dealing in a complete line of sporting and camping equipment, instead of confining the business to surplus government goods and collectors' pieces as in the past. A "satisfaction or money back" policy will be followed, Mr. Albertson having announced that all complaints will be settled to the satisfaction of the customer without argument. Mr. Albertson will retain his own business in Lewes, Del., and will continue as agent for the Midland Gun Co.

* * *

PASADENA HONORS ITS SECRETARY

THE Pasadena Rifle and Revolver Club of California has been the first to accept the suggestion that civilian clubs recognize the efforts of their hard-working Secretaries by presenting them with a life membership in the National Rifle Association.

Mr. H. A. Rich, who has been Secretary of the Pasadena Club for about eight years, is the shooter who has been honored by his club with a life membership and the privileges which such membership will afford him for the remainder of his natural born days.

* * *

IS KISSING SANITARY?

THE indoor matches will soon be on, and at this time the riflemen are all getting spoony with their ammunition. Webster's unabridged definition of kissing is a chaste salute of the lips, unabridged of course.

Many riflemen have adopted the practise of kissing their bullets; some for luck, and some because they believe that the moisture supplied helps to provide lubrication and improve the scores. After careful experimenting in the kissing business (with bullets only), I have decided that for myself the scores are improved.

It would greatly relieve my mind, together with many others of the shooting fraternity, if the ammunition manufacturers would assure us that the grease on the bullet is sanitary. To let my mind dwell on the idea of grease being made up from dead cholera hogs, ancient and defunct horses, etc., might cause decomposition and putrefaction of a good score just when I need it badly.

Will some one who knows please advise. To kiss or not to kiss is the all-important question.

FRANK ELWELL, Secretary.
Moraine National Rifle Club, Dayton, Ohio.

HAVERHILL RIFLE AND GUN CLUB "GETS TOGETHER" AROUND MOOSE STEAKS

The moose meat, about fifty pounds, was given to the club by a member who made the kill down in New Brunswick. I sent out fifty-five invites. It was a terribly stormy night, but at that, forty-seven came. The fifty-five had accepted to a man. We had the Mayor and Council of Haverhill present, also members of the police department. Officers of the local National Guard Company, the Major and Adjutant of the regiment, also came. The Regular Army, reserve Army's several branches, and the American Legion were all represented by commissioned officers. All rank and seniority were forgotten, and every one was made to feel as much at home as he would in a camp about the campfire. A fine moose stew, new to most of those present, was served. Fills and refills were in order, with all the fixings down to apple pie, cheese, and coffee. It was fun to see them quit, one by one, unbutton vests and loosen belts, sit back and have a sigh. Smokes were then served.

Because of the sickness of our president, I had to serve as master of ceremonies. The response from the city officials, Army, regular and reserve, National Guard and others, was such that I think with their co-operation we can boom things in 1926.

At our annual meeting held in the State Armory January 7, we elected the following officers for 1926:

President.....	Wm. J. Murphy
Vice-President.....	Guy D. Chadbourne
Secretary and Treasurer.....	A. A. Balch
Executive Committee.....	C. M. Wildes
Dr. G. F. Worcester	
J. R. Parker	
Range Ex. Officers.....	D. G. Fox
C. H. Eaton	
A. M. Estabrook	
Master at Arms and Instructor.....	Wm. J. Murphy

We voted to have a side branch to the club known as Students' Membership, that is, school students and others from fourteen to eighteen years of age, under the management of the Executive Committee. We expect great things from this branch, seventeen already having taken advantage of it. We are also instructing the local military company, the police, and others in safely handling revolvers, pistols, and rifles, and how to shoot. We expect to have teams from our club, the National Guard, Reserve Army, Legion, and Police Department in competition before long. We are as well fixed in equipment as any club in the U. S. A.

Indoors at the State Armory there are nine targets, 75 feet, overhead carriers, and best of light and comfort. Three of these targets can be used for pistol practise, also 50 feet for the juniors. As we use a flood light at 60 feet for pistol, we can bring this back to 50 feet. We have steel lockers for members' use, and use Company rooms for meetings. Outdoors, the City of Haverhill furnishes the National Guard with a wonderful range. It is about a mile from the city proper, cement State highway and electric cars right by the entrance. About 300 yards in on a knoll is a large house about 40 x 20, made of cement blocks with fireplace and other fixings. At the foot of the knoll is the 200-yard firing point, also the 50-yard, 75-yard, 100-yard, 150-yard, and 175-yard firing points. There are

cement butts with two double targets on frames at each butt at 200 yards, 300 yards, 500 yards, and 800 yards. We go back 100 yards on the 500-yard and get 600 yards; go back 200 yards on the 800-yard and get 1000 yards. An extra large cement butt back of the house gives us four double targets for pistol and revolver. Wood on one side and knoll on the other for protection give us 25-yard, 50-yard, and 75-yard firing points. Between head house and pistol butts is a large level firing point with traphouses, one southeast, the other south, for Elliot trap in one and Western trap in the other. The trap game is owned and run by the club. What more does a bunch of gun cranks need to make them happy?

ASABEL A. BALCH, *Secretary.*

* * *

AMES LOSES

THE Ames Faculty Rifle Club lost a kneeling match to West Bend. The match called for twenty shots per man. The scores were:

West Bend Rifle Club No. 1	West Bend Rifle Club No. 2
O. H. Mahery.....195	Freilinger.....177
Mike Altman.....193	Heiderscheid.....181
Nick Altman.....193	Montag.....182
F. E. Border.....195	Slack.....191
John Altman.....196	Dorweiler.....191
	922
972	

Ames Faculty Rifle Club No. 1	Ames Faculty Rifle Club No. 2
P. T. McNeil.....183	Siewert.....166
H. K. Davis.....184	Kingland.....171
John Ripkey.....188	Powers.....174
J. V. McKelvey.....190	McCormick.....177
A. K. Friedrich.....197	Hiland.....182
942	870

* * *

VIRGINIA TECH RIFLEMEN GOING STRONG

In a match during the week ending December 12, the rifle team from Virginia Polytechnic Institut defeated the University of Pittsburgh, George Washington University, Rensselaer Polytechnic Institute, and the Sea Cadet Corps of the Navy League of Canada.

The V. P. I. shooters, in the four position match, ten men to shoot, five high scores to count, turned in a team total of 1892. George Washington registered 1891, Pittsburgh 1877, Rensselaer 1831, and the Canadian boys 1618.

A match with West Virginia fired at the same time, all ten scores to count, gave V. P. I. a total of 3693, and West Virginia 3546.

During the week ending December 19, V. P. I. and University of Maryland tied up in a prone position match with team scores of 498 each.

* * *

SANTIAGO STARTS NEW YEAR WITH VICTORY

The Santiago Rifle and Revolver Club, Santa Ana, Calif., opened their 1926 season with a match against the battleship "California" fired on January 17. The conditions called for teams of ten, ten shots per man at 200 yards rapid fire and 500 yards slow fire and five shots sitting and five shots kneeling at 300 yards slow fire. The six highest scores on each team were counted for record, and when the smoke of battle had cleared, the civilians had a total of 835 and the sailors, 818.

The Santiago Club is planning for a large number of matches of this type during the year, as they find "it is the only way to hold interest."

FORT PITTS CLUB ELECTS

THE Fort Pitt Rifle Club held its annual dinner and meeting at the Seventh Avenue Hotel, Pittsburgh, Pa., it being the twentieth annual dinner of the club. About one hundred members and riflemen attended. After the banquet had been served, the report of the secretary-treasurer was read and approved, and the financial condition of the club was excellent. The club successfully held twenty-five matches open to anybody and five restricted during the season of 1925, which proved to be a great benefit to visitors in getting acquainted with military rifle shooting.

Four revolver matches were held, and surprised the old members, who declared they had never seen such large entries in the revolver matches during the history of the club. A series of four special revolver matches was held, known as the "W. S. Brown Team Match." A cup was presented by W. S. Brown, the sporting goods dealer, and was contested by the following teams: Pittsburgh Police, Woodlawn Rifle Club Revolver Team, Pittsburgh Bankers and Fort Pitt Rifle and Revolver Team, the latter winning by having the highest score of the season.

Three days during the season were set aside for army qualification course "A." Sixteen members qualified for Expert Riflemen, four Sharpshooters and two Marksmen.

After the reports were submitted the meeting was ably addressed by the several following speakers: Capt. Robert Cain of Pittsburgh, Pa.; Col. Blaine Aiken of Washington, Pa.; Col. Harry C. Fry, Jr., of the U. S. Aero Division; Edward F. Duffy, Esq., an old charter member of the club; and Maj. W. A. Wolfe.

(Note on above matches that during some of the Saturday afternoon scheduled matches as many as thirty-eight riflemen contested and many times it became very dark at the finish.)

The following officers were elected for the ensuing year: President, Capt. E. B. Riddle; vice-president, Dr. D. A. Atkinson; secretary-treasurer, C. W. Freehling; Executive Officer, A. B. Whitehill; directors, T. C. Beal, P. H. Dillman, J. D. Davis, James McRorie, E. H. Price, D. J. O'Hara, W. M. Sheridan, and R. G. Todd.

The club is looking for a very successful year for 1926.

C. W. FREEHLING, *Secretary.*

* * *

AN OPEN CHALLENGE

TROOP "A," 113th Cavalry, Iowa National Guard desires telegraphic gallery matches with other military organizations—both Regular and National Guard. Fifty-foot range. N. R. A. targets and rules. Address communications to Lieut. James S. Wilson, Box 62, Iowa City, Iowa.

* * *

SUPERIOR RIFLE CLUB

The Superior Rifle Club of Calumet, Mich., is on the warpath and would like to hear from Rifle Clubs that wish to compete in friendly postal gallery matches.

Members of the club are in favor of shooting a three or four position match, i. e., Prone, Sitting, Kneeling, and Standing, and to shoot ten shots and two sighters in each position. Ten man teams and five high scores to count.

Come on and mail us your challenge.

Address communications to O. W. Keckonen, Secretary.

News of the N. R. A. J. R. C.

(A Unit of the National Rifle Association devoted to teaching every boy and girl in America the safe and accurate handling of the rifle.)

THE Junior Rifle Corps, formerly the Winchester Junior Rifle Corps, is glad to announce through these columns that the new organization is carrying on its complete program in its new headquarters with the National Rifle Association in Washington. All files and supplies were shipped during the Christmas holiday period and the new organization was set up and ready to "carry on" on January 1.

It must be remembered that this organization has a total membership of one hundred and thirty-five thousand boys and girls; and it is no little task to move all necessary equipment overnight, break in new help, and keep everyone happy. This change necessitated the reprinting of all forms and the making up of new medals, some of which were not delivered on schedule time, but fortunately there was a sufficient supply of the type formerly used on hand, thus eliminating any appreciable delay. Readers of THE AMERICAN RIFLEMAN and especially those instructors and juniors who are its regular readers will be glad to know that this space will be devoted to "News of the N. R. A. J. R. C." in future issues.

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SAM MOORE AGAIN TAKES CONSECUTIVE BULL'S-EYE RECORD

EVERY so often one of our members comes to the limelight with a new record in rifle shooting tucked under his belt. A few years ago a boy wrote us asking if there had ever been a contest conducted for consecutive bull's-eyes. Ulric Vance of Hillsboro, Ohio, was first to better the 1000 mark, making 1022 consecutive bulls. He was closely followed by Howard Burks of Fresno, Calif., with 1095. In June of 1925 Sam Moore, 12th National Rifle Day, took his turn at it and when he had finished scores showed that he had run the consecutives up to 1500 with 1355 shots in the "A" ring—a 3-8 inch circle.

Clifford Pool started the new year with 1785 consecutives missing out on his 1786th shot, after firing over a period of eleven hours. Frank Castuer and Leland Talbott started along with him but missed out on their 920th and 296th shots respectively. We also understand Miss Annabell Hartman has won a "spring bonnet" for having made 20 "A's" in one of the recent N. R. A. J. R. C. weekly matches.

Sam Moore was not to be outdone and on Saturday, January 16 again came to the front with 3000 consecutive bull's-eyes, a record to stand for some time to come. Moore's time was exactly eight hours. He shot five hundred bull's-eyes in 48 minutes and 20 seconds, which is also a record for speed and accuracy.

Any more members want to better this record? If you will write in to National Headquarters, especial targets and instructions will be forwarded.

WINNER SEAL CONTEST

THE "Winner Seal" Contest is in full swing again! Matches are being arranged each week for those Units who have expressed a desire to shoot, and many of them are now well on the road to the "Pro" and "Marksman" Unit Qualification Honors. There are, however, a number of Units who are not participating in this contest, which is a privilege to be enjoyed by every N. R. A. J. R. C. Member. If your Unit is one of the "not so active" kind, and if you'd like to shoot in this competition, ask your instructor to write the Director of Matches for a schedule. Let's make every Unit an active group of Shooters! This page will carry a "Standing of the Units" in the Winner Seal Contest next time. See if yours is listed,—and if it's not, help put it in the "News" so that others may read about your good work.

* * *

NATIONAL INDIVIDUAL MATCH

EVERY year a contest is conducted to determine the National Individual Championship. Our enrollment membership is so large that it will again be necessary to hold two elimination contests. These will be known as the Local and State Elimination Matches. These matches will be conducted during the months of March, April and May. The Local Match conducted in March will determine the Local Champion of each community. The twenty-five highest contestants in each locality will then be entered in the State Matches, to be conducted in April. In May the final National Championship Match, made up of the twenty-five highest contestants in each State will determine the National Individual Champion of the National Rifle Association Junior Rifle Corps.

In the past, we have limited this match to Sharpshooters, but this year's match will be open to any National Rifle Association Junior Rifle Corps member in good standing. Unit Instructors may enter as many members as they wish. Eight special targets for each member entered will be forwarded and shot under the Instructor's supervision, in any position. The targets of the three highest in each Unit will be mailed to National Headquarters.

Instructors will be sent applications for members of their Units. National Rifle Association Junior Rifle Corps members not connected with any Unit can shoot in this match, by sending their name and address to National Headquarters. Shooting must be done under adult supervision.

First, second and third prizes will be awarded, and the title of "National Champion" of the National Rifle Association Junior Rifle Corps for 1926 in the final match. No former champion can compete for any of these prizes, but may defend his title.

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CONSISTENCY WINS!

EVERY time, in anything we do, it's always the consistent fellow,—the one who keeps "plugging away" who wins. Just a bank runner or

an office boy, through the medium of consistency, climbs to a responsible position in his business, so do N. R. A. J. R. C. Units shooting REGULARLY and every week, shoot their way to the front ranks, thereby winning the N. R. A. J. R. C. Unit Qualification Honors.

A consistent Unit may not be the best, but we'll venture to say that those Units who "keep shooting" will always be among the winners. Following is a standing of the Units as they stood after shooting the matches arranged for week ending January 16. Note the first nine are "Promarksman Units."

Unit	State	Seals Won
91	Chicago, Illinois	17
812	Fresno, California	16
644	St. Louis, Missouri	16
2741	Crestline, Ohio	14
1884	Waterbury, Connecticut	13
2742	St. Louis, Missouri	12
2690	Webster Groves, Missouri	11
2535	Waterbury, Connecticut	10
2660	Menominee, Michigan	10
823	Brooklyn, New York	9
2786	Chicago, Illinois	9
327	Davenport, Iowa	9
2750	Hartford, Connecticut	8
1700	New York, N. Y.	8
1224	London, Ontario, Canada	8
2786	Waterbury, Connecticut	7
2812	Crestline, Ohio	7
2903	Waterbury, Connecticut	7
669	New York, N. Y.	7
2763	Winter Garden, Florida	6
2667	Chicago, Illinois	6
2541	Plymouth, Massachusetts	6
2554	Lake Mohonk, New York	5
2813	St. John, N. B., Canada	5
2689	Chicago, Illinois	5
892	Boston, Massachusetts	5
2303	Waterbury, Connecticut	5
2450	Evanston, Illinois	5
2571	Walden, Colorado	5
562	Falls River, Massachusetts	4
2733	Natick, Massachusetts	4
2690	Chicago, Illinois	4
2311	Franklin, Pennsylvania	4
856	Silver Bay, New York	3
2767	New Haven, Connecticut	2
6	Westville, Connecticut	2
39	New Haven, Connecticut	2
2765	Fresno, California	2
2782	Eagle Lake, Texas	2
2650	Evansville, Indiana	2
2623	Winfield, Kansas	2
820	Altoona, Pennsylvania	1
826	Fresno, California	1
825	Fresno, California	1
812	Fresno, California	1
755	Fresno, California	1
526	New Haven, Connecticut	1
2558	Wichita, Kansas	New
2559	Wichita, Kansas	New
2267	West Hartford, Conn.	New
2822	Falls River, Massachusetts	New
1947	East Orange, New Jersey	New

E. FINIS.

TARGET RANGES IN OREGON

"The Oregon Guardsman," which is the official publication of the Oregon National Guard, in the issue of January 15, carries the following item:

"Now is the time to get busy on that target range for your organization. The State of Oregon is particularly fortunate in having suitable target ranges for a majority of the organizations of the National Guard.

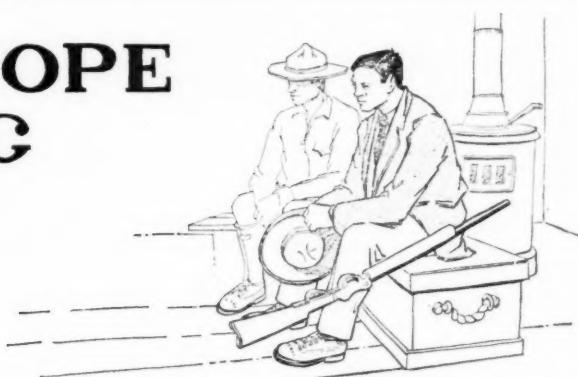
"There are still a few organizations which have no target ranges, and as the War Department has allowed ample Federal funds to lease and construct these ranges, the organization commanders who have not as yet secured a range for their organization should bend every effort to do so."

This item is evidence of the interest in the shooting game which exists in the office of the Adjutant General of the Oregon National Guard. The civilian clubs located in towns where there are National Guard units which do not have rifle ranges at the present time, should immediately take the matter up with the Commanding Officer of the local Guard unit and extend all possible co-operation to the Guardsmen in their efforts to obtain a suitable range.

It is very probable that by co-operating with the Guardsmen the present civilian club range facilities may be considerably improved.



THE DOPE BAG



A Free Service to Target, Big Game and Field Shots—All questions answered directly by mail

Rifles and Big Game Hunting: Major Townsend Whelen

Pistols and Revolvers: Major J. S. Hatcher

Shotgun and Field Shooting: Captain Charles Askins

Every care is used in collecting data for questions submitted, but no responsibility is assumed for any accidents which may occur.

Double Rifles

By Townsend Whelen

I HAVE been subscribing to THE AMERICAN RIFLEMAN and its predecessor for a good many years, and have been much interested in your Dope Bag correspondence.

I venture to write to you now with regard to the question of D. B. Express rifles considered on page 23 of the issue of June 15.

I put in twenty-six years in the Indian Forest Service, and used four rifles of this type (D. B. black powder rifles). I was able to compare notes with a good many other users of similar guns.

I would say that a change in the charge does not always put a D. B. rifle off its shooting.

I bought a secondhand 12-bore rifle by Bradwell, and the man I got it from used 6 drams of black powder with a round ball. It was very accurate with this charge, and a change to 4½ drams seemed just as good. I later ascertained from the maker that this rifle had been adjusted for a conical bullet and 4½ drams. I lent this gun to a friend, with twenty cartridges. He returned it and twelve cartridges. He had used eight rounds, tried the sights, and killed a tiger and two stags.

I also had a .500 Express by Rigby. At that time there were two commercial .500 Express loads for the 3-inch case—.500-130-340, .500-130-440. The first had a paper-patched bullet, the second a cannelured bullet.

I tried the latter. The gun was inclined to get leaded and hard to clean. I then tried the 340-grain papered bullet and used it with satisfaction for several years. I brought the rifle home, when on leave, to get the locks altered, and the maker told me it was intended to shoot a specially heavy-papered bullet.

I got an adjustable mold and used it to cast a 440-grain bullet, which was a better killer than the 340-grain. I never could get more than about 125 grains of powder into the case. This heavy bullet shot a little lower than the 340-grain, but I had always a tendency to shoot too high and this slight change in elevation was to the good.

The 12-bore rifle certainly shot accurately, both barrels, with the spherical ball, but it had been originally adjusted for a different charge. I never regularly targeted the .500, but I never noticed that the two barrels did not shoot together, though I used two different weights of bullets, and I killed a lot of game with it. I could rely on it entirely. If a beast got away it was not the fault of the rifle. I think C. H. W. ought to test his Turner rifle before he discards it. Also there were two lengths of straight tapered .500 cases 3 x 3½ or 3¾ inches and at least one bottle-shaped case. A sulphur cast would show which case his rifle was chambered for.

Toward the end of my service I tried out three high velocity rifles—333 Jeffries, .250 Savage, and .350 Winchester, but I always took out the old .500 double for any of the carnivora. It was an excellent gun for any thin-skinned game, but failed badly on bison.

I got most of my shooting in the woods and at comparatively short ranges. Up to 100 or 120 yards the black powder rifles are hard to beat. I found the so-called low pressure oxite cartridge with nickel-based bullets worked perfectly in the Rigby .500 and that got over the smoke trouble. S. L. Kenny, Ballinrobe, Ireland.

Answer (by Major Whelen). I thank you very much for your kind letter of July 26 relative to double barreled express rifles. We have had very little experience in the United States with such rifles, the repeating or magazine rifles being the most popular here, where we have absolutely no dangerous game that frequents thick cover. Unfortunately the experiences of our older sportsmen who have used double barreled black powder express rifles many years ago, are practically lost to us. The only references I can find to these rifles in use in the United States is five or six remarks in sporting books that such rifles were tried, and the two barrels did not shoot together.

We have, quite generally, had similar experience with the newer double barreled cordite express rifles which some of our sportsmen have lately imported. The barrels do not shoot together. Quite often there is a difference in location of the centers of impact of the two barrels of six inches to two feet at two hundred yards. Also, any slight difference in the charges of those cordite rifles seems to make considerable difference in the shooting of the two barrels, and also in the sighting of the rifle.

It is quite likely that many of the double barreled rifles that have been adversely criticized in this country have not been first-class weapons by the very best makers, and I for one am quite ready to admit that the best British rifle makers are quite able to make double barreled rifles, which will give good sporting accuracy at medium ranges, and the two barrels of which will shoot practically together at medium ranges.

From our knowledge of rifles in the United States it would seem quite possible that a black powder double barreled rifle may shoot accurately with both barrels, and also with the same sighting up to about 150 yards. When we used black powder rifles (single shots and repeaters) in this country we did not have nearly the same troubles with barrel jump we have with the newer smokeless powder weapons. Take our .45-70

black powder rifle, for example. Many different charges were provided for it with bullets varying in weight from 300 to 500 grains. In a given rifle, at 100 yards, these various charges almost always shot with the same sight adjustment, and at longer ranges there was only that difference in sighting that would be anticipated from the difference in trajectory of the charges. Particularly, with black powder rifles, there did not seem to be that tendency for each load to have its own particular windage zero which we often find with different loads in high power smokeless rifles. Most black powder rifles shot all loads with the same windage adjustment, and also shot all loads having anywhere near the same velocity, with practically the same elevation at 50, 100, and perhaps 150 yards. Thus, if our black powder results are at all comparable with yours, and I think they are, we would expect to see a double barreled black powder rifle which shot the two barrels together with good accuracy, also give good results, and have about the same sighting, when used with a slightly different black powder charge. The trouble is that in this country we most evidently have few double barreled rifles which do shoot alike with both barrels.

Perhaps the greatest handicap we find with double barreled rifles is in the matter of sights with which they are equipped. They are invariably equipped with a very large, open "V" sight. However good such a sight may be for quick shots in thick brush, invariably we have found this to be the most inaccurate form of rear sight. Not only is it inaccurate for a series of consecutive shots, but we find that it is more influenced by changes in light than any other form of sight. The very deep "V" does not present any line of surface which will surely tell the riflemen that he is seeing the front sight at exactly the same height in the "V" each time. Also the platinum line on the inclined rear surface of this open sight dazes the eye in bright lights, and prevents that fine definition of sights and target so necessary for accurate aim. Then to cap the climax, the makers affix these sights to the rib of the double rifles so that they can be adjusted only very roughly for elevation and windage. An adjustment of .001 to .005 inch may be indicated in order that the sportsman may be able to bring his point of aim and point of impact to coincide exactly at a given range. Such adjustments are manifestly impossible with such sights. Also the foreign maker sights his rifles in at the factory, and takes it for granted that this sighting will prove satisfactory for the customer. We find, that given two very expert and experienced riflemen, using the same rifle, most accurate orthoptic sights, same method of aim, same ammunition, everything as alike as it is possible to make it, the centers of impact between the two men are liable to be as much as 6 inches apart at 100 yards. How then can a workman at a factory sight a rifle correctly for a customer except by the merest

chance. Thus in the United States our riflemen demand a more accurate sight, and one which they themselves can readily adjust so as to bring the points of aim and impact to coincide exactly at any given range.

In this discussion I believe that we should not lose sight of the fact that the kind of shooting and the character of weapon in our two countries are most decidedly different. The big game hunters in Great Britain and her colonies are essentially "sportsmen" and not riflemen. Also the citizens of the United States who have in the past imported double barreled rifles from English makers, are essentially "sportsmen" and not riflemen. They are almost always of our most wealthy class. They take their big game shooting with their polo, and their golf, relying entirely on artisans for their tools. But the class of men to whom you have been introduced through the pages of THE AMERICAN RIFLEMAN are entirely different. While they are most sportsmanlike in all their dealings and habits, yet they are decidedly specialists. When it comes to big or small game shooting I think that the term "hunter-riflemen" would fit them better than the word "sportsmen." In their shooting they are extremely highly trained. When they fire they expect to find that their bullet has struck within about an inch and a half at one hundred yards, or three inches at two hundred yards, of the exact spot on which the front sight was aligned when the trigger was squeezed. Such a man makes clean kills with the first shot on standing game almost always.

ABOUT IRON SIGHTS

SOME time ago I wrote you, requesting information on various subjects pertaining to the rifle shooting game; and having followed your advice with extra good results to myself, wish some additional information.

In order to use the .30-'06 Sporster as a hunting arm, I had mine equipped with Sheard's cold bead front sight and Lyman 48 rear peep. This seems to be a fine combination. What I wish to know, is this: Is the above combination of sights legal in matches calling for "iron" sights, or must the sighting equipment be what the name implies—"iron" or steel? I also have a Model 52 Winchester upon which I intend placing a Marbles V-M front sight. As you know, this is an aperture sight, lined and faced with an alloy resembling gold. Is this sight permitted in matches shot under N. R. A. rules calling for metallic sights?

My Winchester 52 has scope blocks on barrel, and I am contemplating purchasing a scope to use on this arm. What make would you choose? Winchester 5-A, Fecker, or what—why? Could the same 'scope be used on the Springfield Sporster, and if so, would different mounts be necessary?

H. L. N.

Answer (by Major Whelen). Both your Springfield sporting rifle and your Winchester Model 52 rifle, with the sights you have indicated, are eligible for use in matches calling for "Iron Sights." The Springfield sporting rifle, of course, is not eligible for matches which specify the "service rifle, as issued." The term "iron sights" is meant to include all metallic sights, including front sights of any form or with gold or ivory bead, but specifically excluding telescope sights.

I believe that the very best target telescope sight is the Fecker 6-power with $1\frac{1}{8}$ -inch objective and 3-inch eye relief, with the new Fecker double micrometer precision mountings. The Winchester 5-A scope with No. 2 rear mount, and the Belding and Mull target telescope sight with "D" rear mount, are also excellent telescopes, but personally I think that the Fecker is a little bit the better scope, and the Fecker mounts a little bit the better mounts. The Fecker mountings require special dovetail blocks differing slightly from the Winchester dovetail blocks, but these Fecker blocks screw into the same holes in the barrel by which your present Winchester blocks are secured, so you can interchange them with a screwdriver. Blocks should be located on the barrel 7.2 inches between centers.

WANTS STAR-GAUGED ENFIELD

COULD a fellow buy a star-gauged Enfield Model '17 rifle? If so, would it have the same bore and groove measurements as a star-gauged Springfield?

Please describe the French 8 mm. rifle as offered for sale to members of the N. R. A. Is it the old Lebel with tubular magazine, etc.? Also please compare the French cartridge with the old standard German 8 mm. which loads in clips.

Do you think this combination of French rifle and ammunition would with a little remodeling, make a good hunting and target weapon? Of course a fellow would have to use suitable bullets for big game.

How does the above combination compare with our own service arm and ammunition for accuracy? M. L.

Answer (by Major Whelen). The U. S. Model 1917 (Enfield) rifle barrel can not be star-gauged, as the star gauge instrument will work only in a barrel which has four lands and grooves of standard Government width, and the Enfield barrels have five grooves and lands. All these Enfield barrels vary in groove diameter from .312-inch to .314 inch, and the only possible way to get a barrel with standard groove diameter .308-inch to .3085 inch, would be to purchase a rifle and then have some private gunsmith fit a new barrel. But really the regular Enfield barrels are excellent. It would take a very fine shot to tell the difference between them and a star-gauged Springfield barrel.

The French Lebel rifle is a bolt action rifle with a tubular magazine under the barrel, a very crude, strictly military weapon. It fires the 8 mm. Lebel ammunition with solid boat-tail bullet made of an alloy of copper and zinc. This cartridge, together with the 8 mm. Mauser cartridge, is entirely unsuited for any work in America. They are decidedly inaccurate according to our standards, and are really two cartridges to steer away from.

There are none of these obsolete or war-time foreign rifles that can compare for an instant with a good Krag or .303 Ross rifle.

.32-40 SCHOYEN

I HAVE just acquired (by gift) a .32-40 barrel, weight nine pounds, 30 inches long, octagon, in new condition, made by Schoyen of Denver. I have a Remington action of the .50-70 type on hand, and have been wondering whether this barrel could be fitted to this action, that is, would the action stand the loads of the .32-40? No loads would be used except black powder and du Pont No. 80, the rifle to be used only for target purposes. The barrel seems too good to be left around unused, and I do not want to go to any expense of buying a different action. It happens that threads and extractor cuts will fit the .50-70 action. What do you think about it?

Having a Krag rifle barrel (new) on hand, do you think that the action of the French Lebel 8 mm. rifle as sold by the D. C. M. would furnish a presentable action to which to fit this Krag barrel. Niedner gave me a price of \$6.00 for rechambering for 150-grain bullet and rethreading barrel fitted to this action, but not having seen what the action looks like, I hesitate to buy one. What do you think of the plan? F. E. B.

Answer (by Major Whelen). I can see no reason why you should not place your .32-40 Schoyen barrel in a .50-70 Remington breech action. The action should stand any normal load of black or bulk smokeless powder. It may be, however, that there will be a slight spring to the breechblock so that cases once fired will be lengthened so that they can not be reloaded. Only a test will determine this, however; I would advise your going ahead with your plan.

The French Lebel 8 mm. action is a bolt action, with a tubular magazine under the barrel like the Winchester. It is a rather crude, uncouth action. I know rather little about it. It seems to me that the 8 mm. Lebel cartridge has a much larger

head than the Krag cartridge, and it may be that the bolt head will not handle the Krag cartridge. Also I do not know how the Krag cartridge will work through the magazine and carrier. It is all doubtful, and I am sorry I can not clear it up for you. But I do think that it would be far preferable to place your barrel in a regular Krag action.

USE 8-mm. MAUSER CARTRIDGE

I HAVE a rifle which has proved quite a job to get ammunition for. The gun is a straight pull Mannlicher marked Steyr Model 95 Imperial Arms of Austria—97. Bannerman in his catalog quotes this gun as the Austrian straight pull Mannlicher 8 mm. caliber. The bore is evidently 8 mm. but shell chamber is too short for any 8 mm. cartridge I have ever tried. As this gun was used in World War it is evidently not an obsolete caliber. Thought you might be able to give me some information as to ammunition and where to purchase it. Also will you give me your opinion on the inclosed advertisement by Bannerman. It looks like the Enfield to me. Does the Government sell these guns to members of the N. R. A. and if so, what price? C. B. H.

Answer (by Major Whelen). So far as I know, the Austrian straight pull Mannlicher rifle was made to take only the 8 mm. Mannlicher cartridge, which was practically identical with the 8 mm. German Mauser cartridge used prior to about 1905. The groove diameter of barrels for these old 8 mm. German and Austrian cartridges was about .319 inch. When the Germans adopted the pointed bullet for their 8 mm. rifle they changed the barrels, the new barrels having a groove diameter of from .322 inch to .326 inch, and often the new ammunition, which has a correspondingly larger bullet, will not fit in the older barrels. The whole 8 mm. matter is hopelessly mixed up, and it is usually a hopeless task to find the correct and accurate ammunition for a given rifle. I would advise you to try the 8 mm. Mannlicher ammunition with 236-grain soft point bullet, made by Remington Arms Company. If this won't fit, then you had better hang the rifle on the wall as a decoration.

The Bannerman rifles are the U. S. Model 1917 using the .30-'06 cartridge. They are very good weapons if in good condition.

.38-55 Vs. .38-50

I HAVE a Marlin-Ballard action rifle, caliber .38-50. Would it be safe to use .38-55 black powder cartridges in this rifle as .38-50's are not now obtainable? This is a fine target rifle, perfect condition, has a heavy octagonal barrel, engraved receiver and Swiss butt-plate. Do you know where I could obtain .38-50 cases?

What bullet weight and type in .30-'06 caliber would you suggest for bear and deer in Pennsylvania? I think my favorite, the Remington 110-grain Hi-Speed, is too light. G. A. L.

Answer (by Major Whelen). The .38-50 Ballard rifle used the .38-50 Remington cartridge. I have not seen a .38-50 Remington cartridge for years, but my memory is that the case of this cartridge is shorter and more tapered than the .38-55 case. The Remington bullet measures .373 inches, and the .38-55 bullet .375 inches. The difference in bullet diameters is not material, but the shape and dimensions of the cases are. I don't believe it would be possible to use .38-55 cases in a .38-50 rifle. Write the Remington Arms Company, Bridgeport, Conn. They may still be able to supply .38-50 Remington cartridges or primed cases.

Any of the soft point or expanding bullet cartridges in .30-'06 size, with bullet weight from 150 to 220 grains would be perfectly satisfactory for deer or black bear in Pennsylvania. All have excess power for such game. As the cartridges loaded with 150-grain bullet, M. V. 2700 f.s., give less recoil than those loaded with heavier bullets, I should think that they would be the more suitable.

THE FORESTER TENT

I INTEND making a light weight tent for hunting and cruising and have decided on the Forester tent, but I am having trouble in regard to what material to use for it as I want it as light as possible and yet able to stand a good shower and cold weather.

I was wondering if I made a tent of unbleached muslin or plain light weight cotton drilling and dressed it with a compound known as Protection, would it fill the bill, as I have seen a piece of cheesecloth waterproofed with this Protection and it repelled water quite well and seemed to be quite waterproof? If you have any other suggestion to make I would gladly receive your information.

I also intend making a sleeping bag according to your directions, but I seem to be unable to get gray wool flannel. I can get cream wool flannel but in a narrow width about 27 inches, where I would like to get it about 36 inches wide so I could use one piece instead of stitching it together as my bag will measure inside about 32 inches by 78 inches. Do you think this is large enough, or do you think I could still cut down its size to save weight? I would also like to know what kind of wool batting would be the best, the plain wool batting or wool batting covered with cheesecloth. C. P.

Answer (by Major Whelen). Probably a tent maker would scorn a Forester tent of unbleached muslin, but I don't see any reason why it should not be done, and then treated with any good waterproofing compound. It will scarcely be as durable as the materials the tent makers use, but it ought to last three or four seasons all right. When a boy, I made two canvas canoes of unbleached muslin. They were ten feet long and thirty-two inches wide, the ribs being made with flat barrel hoops. I covered them with unbleached muslin, and gave the muslin three coats of paint. Each of them lasted a full season, that is, the three summer months. They cost me about \$3.00 each.

I have a Forester tent that I have used a lot, and like it very much. Mine is of the regular pattern with hood, and was made by its inventor Warren H. Miller, the former editor of *Field and Stream*. But the hood in front which is used to partly shut the front in rainy weather, is too small. The two halves will seldom meet in the middle, and you often want them to meet, particularly when you stretch them out in front to make a sort of awning. Better make the hood much larger so the two halves will surely meet in the middle.

Regarding the lamb's wool sleeping bags, I think about the best you can do is to get the large wool comforters or sheets of batting that are covered with cheesecloth. Leave the cheesecloth on, and cover with flannel of any color. The outfitters use gray flannel, about the same material that gray flannel shirts are made of. Cream flannel would be just as good, although of course it will show the dirt more. To save on weight you can make the bag taper to narrower width at the bottom, say about twenty-four inches, coffin shape. Be sure to make the bag plenty wide enough at the head, shoulders, and hips. I should say thirty-six inches. If you have the bag too small at these parts it sticks to you, and every time you turn over the bag turns with you, and you get all tangled up and uncomfortable, and wake up. With a narrow bag you may wake up on this account five or six times during the night, and this is not conducive to a good night's rest.

THE .32-20

LAST fall, in looking around for a light weight, low power rifle, for casual shots at everything from tin cans to coyotes, up to 100 yards range I selected a .32-20 caliber Savage Sporter.

I have found it to be a very good knock-about gun for my use; using commercial ammunition. It has fair accuracy at 70 to 100 yards (most of my shooting with this rifle is around 60 yards) but the cost of around 400 rounds per month is

a little expensive. Have tried some reloading, using cast bullets of different temper Winchester primers, Unique and No. 80 powder, all makes of shells, and have never exceeded recommended charges on the cans.

Have not been able to get much better than two inch groups with the reloads at sixty yards, so there must be a nigger in the woodpile somewhere, possibly the cast bullets.

Perfect bullets, I find, are hard to mold. Would you advise the use of jacketed bullets in place of the cast bullets? And if jacketed bullets were used what would be the best powder and charge to use? What kind of powder and charge would be used to get the most velocity out of the eighty grain bullet? Would like to try a few shells loaded for extreme velocity just for the fun of the thing.

Used as a single shot, the Colts New Police pistol cartridge makes a good "reduced" load in the Sporster at a short range. Lots of power but useless at over 80 yards. E. P. H.

Answer (by Major Whelen). Your .32-20 Savage sporting rifle is, as you describe it, a fine little knock-about rifle. In California it ought to be a good rifle for ground squirrels, coyotes, bob cats, etc. Of course it is not a long range rifle, and it is hardly suitable for use over about 150 yards, on account of the high trajectory and degree of accuracy. You speak of not being able to get groups better than two inches at 60 yards. My own experience with all makes of .32-20 rifles is that with the best ammunition they average from $1\frac{1}{2}$ to 2 inch groups at fifty yards. I do not believe that you will be able to get better accuracy than this with any load which will work through the magazine. Also, unless you are extremely skilled in molding bullets, and in reloading, I don't think you will get nearly as good results with lead bullets as you will with jacketed bullets.

Regarding the factory ammunition of .32-20 caliber, so far as I know all the smokeless cartridges, except the Winchester make of low power smokeless, are loaded with Sharpshooter powder, and the fouling is so corrosive that I know of no way of cleaning which will prevent ultimate ruination of the bore by pitting. I use the .32-20 Winchester low power smokeless cartridge, 115 grain soft point bullet, exclusively, and have found it excellent in every way.

For hand loading I think you will get the best results by using the 100 or 115 grain soft point bullet and nine to twelve grains weight of du Pont No. 80 powder. The nine grain charge will give you a low powder load, and the twelve grain charge a high velocity charge. I don't know the powder charge for eighty grain bullet. Probably du Pont No. 80 powder would not burn properly behind that bullet, and to get good ballistic results you would have to use Sharpshooter powder with its attending corrosive qualities. The Hercules Powder Company, Wilmington, Del., can tell you the charge of Sharpshooter powder to use to get the highest velocity with the sixty grain bullet.

BALLISTICS ON THE .300

WILL you please send me the table of modern loads for the .300 Savage, same as the table No. 2 for the .30-'06 cartridge, in "Arms and the Man," November, 1922.

Can you tell me the ballistics of this load I

Bullet	Powder	M. V.	Pressure	Remarks
150 Exp. 39 grs. Hi Vel	2700	42,000	
150 Exp. 40 grs. Hi Vel	2750	45,400	
220 S. P. 40 grs. du Pont No. 15	2150		
110 Rem. 41.1 grs. du Pont No. 16	2512	28,040	0.25 Air Space
110 Rem. 42.5 grs. du Pont No. 16	2624	28,760	0.15 Air Space
110 Rem. 45. grs. du Pont No. 16	2915	37,730	0.00 Air Space
150 Exp. 42. grs. du Pont No. 16	2529	38,100	1.10 Air Space
110 Rem. 14 grs. du Pont No. 80	1500		
150 Exp. 16 grs. du Pont No. 80	1500		
8 L. 17 grs. du Pont No. 80	1000		Luger bullet quite accurate

am using in my .300 rifle and if I can change to make it better? Twenty-one grains du Pont No. 80 with 87-grain Mauser Weston Lubaloy or with a 98-grain Luger bullet. I. R. F.

MOOSE IN ONTARIO

IN October I expect to go to Ontario after moose.

I use .30-'06 Springfield with No. 48 peep and expect to use Western 180 grain open point and 220 Remington Express mushroom. I like shooting qualities of Western fine on deer, but wonder if Remington open point express mushroom will be better for moose. What do you think?

Also what are the best spots to shoot a moose to put him down and out? H. D. R.

Answer (by Major Whelen). Either of the Western or Remington cartridges you speak of are ample for both deer and moose. There is absolutely no choice between them. Both have plenty of killing power and accuracy, and give a flat enough trajectory.

On all of our big game there is just one vital spot that should be tried for every time. This is the heart region, which lies just behind the fore-leg and two-thirds of the way down from the dorsal vertebrae to the scapula or point of chest. No matter in what position the animal stands or how it is facing, aim if possible, to drive your bullet into this region. This point of aim has the advantage that if your bullet strikes a little high, or to one side or the other, you still hit in a very vital area. It happens that in the excitement of shooting the tendency is to shoot high, very seldom low, and hence this region offers the best chance of success.

BOOKS ON THE RIFLE

COULD you please let me know where I could obtain a book or books in which it gives the exact caliber of all American made rifles and how many inches to the turn in the rifling in the various rifles?

Also would like to know if the different comp. bore and rifle give the same amount of twist, the same calibers the same? W. A. W.

Answer (by Major Whelen). There is need for exact and accurate information as to the exact caliber and twist of rifling in our various rifle barrels. You will find quite a lot of information in this respect, dealing with more or less obsolete rifles, and other more modern rifles up to about 1910 in the old Ideal Handbook. These Ideal Handbooks are hard to get, however. They have been out of print for about twelve years. "The American Rifle" brings the data up to date of 1918 and includes the barrel dimensions and twist of rifling of all the calibers which were popular and in general use in 1918. My latest book "Amateur Gunsmithing" contains a table giving this data for all the most popular rifles of January 1925.

As a result of your letter I am now preparing a table in which I shall try to give this information on all American rifles from about 1870 to the present date. It will take a lot of research to get this table up, and it may be several months before it can be published in THE AMERICAN RIFLEMAN.

Answer (by Major Whelen). Herewith is the table of charges for the .300 Savage rifle and cartridge which you request in your letter of October 26.

The probabilities are that 21 grains of du Pont

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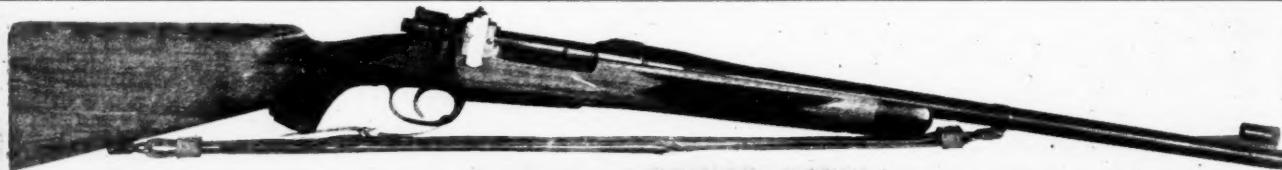
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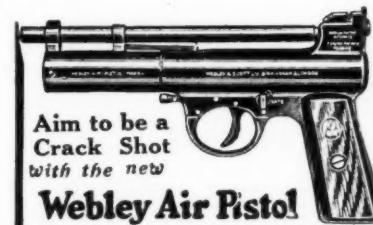
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FOR SALE—350 cal. 45 Colt's bullets, \$2.25; 500 .25-20 bullets; 500 .25-20 primers, \$1.50; Lyman 103 sight on Springfield cocking piece, \$9.50; Ideal reloading tool for .45 Automatic with attachments for .30-06, \$4.25; .45 pistol 15.00; .25-20 Winchester with Lyman sights, \$25.00; Lyman 48 rear sight, \$9.50; B. & M. .30-cal. reloading tool complete with extra .45 cal. resizing head \$8.00. **WANT—**Krag ammunition. Dan Lake, Lake City, Kansas. 2-1-26-C

BARGAINS—Fine Parker, 12-ga. double hammerless G. H. ejector, new condition, \$97.50. 20-ga. V. H. Parker \$47.50. 16-ga. Sauer double hammerless, new, \$97.50. Winchester 95 .30-06 takedown Lyman sights, crank condition, \$39.50. Pre-war Sauer Mauser 8 mm., fine used order, \$51.00. Savage bolt action .250-3000. Good. \$29.50. Simpson Mauser 8 mm., new, \$21.50. Borchardt automatic pistol-carbine, complete with shoulder stock and two magazines in fitted leather covered case. Shoots the powerful 7.63 cartridges. Pre-war outfit, pistol in crank condition. Outfit \$49.50; tanned black bearskin, makes fine rug, \$15.00. Will ship on receipt of \$5.00 check or M. O. balance C.O.D. with examination privilege. W. Kimball, 34 South St., Boston, Massachusetts. 603

SALE OR TRADE—.22 Ballard, double trigger, new barrel, scope blocks, perfect condition \$40.00. .22 Ballard single trigger, perfect \$30.00. Stevens Armory .22, perfect, fancy stock, blocks, \$18.00. .32-20 Colt's Army Special, brand new, 6-in. barrel \$27.50. 45 Colt S.A. 5-in. barrel, fine condition, \$25.00. .32 S. & W. break down 3 1/4-in. barrel, shooting condition, \$5.00. Joslin Rifle, relic, \$5.00. 1825 M. L. Springfield, good, \$5.00. B-5 Winchester Scope and mounts \$17.50. 8 power Stevens scope and mounts \$20.00. New Savage loading tool and mold \$3.50. .45 Colt .32 N. P. tool and mold \$3.50. .25-20 S. & W. tool and mold \$2.50. .40-70 or .45-70 Winchester tool, \$3.00. S. & W. 10-in. pbl., .22 S. & W. target pistol \$17.50. **WANTED—**Trade for .22 Colt Auto. or Resizing. .38 Colt Auto. Military, .52 Winchester Spotting Scope, or 10 power rifle scope. No. 1 Prismers. W. W. McGowan, Secy. Springfield Rifle Club, 1906 Hillside Ave., Springfield, Ohio.

FOR SALE—The most accurate rifle in Denver. Pressure barrel, 30-inch, 13 lbs., double set triggers handworked like Elgin watch, fired 1000 times, pistol grip checkered, Springfield with Remington barrel (Walker's own work), 1906, made for the U. S. International Olympic Team for 1924 that broke the World's record. See page 14 "American Rifleman" February 1, No. 28. F. A. official machine rest group 300 meters (not yards), fifty shots extreme vertical 3.36 inches. Extreme horizontal 2.42 inches; figure of merit 2.89 inches. Rifle No. 1.257.711, with numbered bolt. Rear No. 48 short Lyman sight, W.R.A. scope blocks, front sight W.R.A. hood aperture peep. Gun crack condition, altered in no way whatsoever since leaving factory. Will put 7 x 10 holes on a silver dollar at 200 yards, handholding, scope, and rest, with handload cartridges. Reason for selling—Doctor's orders. Price F.O.B. \$100.00. Draft, wire, or P.O. no checks, nor trades, nor C.O.D. The finest rifle I ever owned or shot. Chauncey Thomas 1627 Lawrence St., Denver, Col. 743

WANTED—.22 L. R. target barrel. Must be in new condition inside and accurate. L. W. Jordan, 37 N. Bouquet St., Pittsburg, Pa. 2-1-26-F

MACHINE RESTS—fool proof, practical screw adjustment, mounted on maple complete \$20. A. Hubalek, 744 Willoughby Ave., Brooklyn, N. Y. 3-15-26-C

FOR SALE OR TRADE—for guns. Tryon Four-in-one Knitter. William LeCorre, Box 102 Houtzdale, Pa. 2-1-26-F

WANTED—Ten gauge shotgun, Winchester, lever, repeater. State exact condition and lowest cash price, or what you would trade it for. Dr. E. H. Cunningham, 101 Baylor Ave., San Antonio, Texas. 2-15-26-C

A FINE BISLEY COLT—with beautiful belt and holster. Frontier Colts, Telescope Sport Mauser, 1903 U.S. Springfield, Savage telescope .22 U.S. 1917, etc. Old Timers, Stamp for correspondence. Milt. Ward 4907 Jackson Boul. Chicago, Ill. 2-5-26-C

SELL—Krag Rifle, checked, oil finished stock cut to sporter, Lyman 48 and gold bead sights. \$25. Krag rifle, oil finished stock, cut to sporter, gold bead front, \$15. Both fine, perfect inside. 300 ctgs. with each rifle, \$2.50 per 100. Rifles prepaid parcel-post on receipt of Postal M. O. Refund if not satisfied. W. M. Humason, P.M. Wigwam Bay, P. O. Minn. 2-1-26-C

SELL OR TRADE—.22 S. & W. Perfected hand ejector revolver, 6-in. bbl., adjustable target sights, 7-shot, blued finish with first quality genuine S. & W. pearl handles, with gold monogram in new condition, light weight model (.16 oz.). WANT—\$28 or Remington No. 12C N.R.A. target grade, new or perfect condition. Guy Burch, 404 W. Main, Benton, Ill. 2-1-26-C

BINOCULARS: 10 x 50 Hensoldt Dialyt, individual eye focus, with case and straps \$70. 18 x 50 Hensoldt Dialyt, central focus, with case and straps \$85. 10X Busch, Terlux with case, new \$65. 6 x 30 Bausch & Lomb with case \$23. Will send C. O. D. upon receipt of substantial deposit. S. R. Bridge, 214 West 34 St., New York, N. Y. 2-1-26-C

WANTED FOR CASH OR TRADE—Pope or Stevens bullet molds, powder measure, lubricator, re and de capper, Smith & Wesson Encased Ejector, Bisley Target, New Service Target, Officers Model with ruined barrel, Pope or Stevens-Pope 22 cal. rifle or barrel, Paradox barrel for Automatic shotgun. S. R. Bridge, 214 West 34 St., New York, N. Y. 2-1-26-C

FOR SALE—Single shot Winchester with Schuetzen butt plate and brand new extra heavy octagon barrel for .22 L. R. cartridge never shot; set triggers. Action is all new, gun just factory overhauled. Also have a .32-40 extra heavy octagon barrel with forearm. Like new. Best offer takes both. Want to buy plain good match Springfield and Remington Model 24 .22 short Automatic. M. M. Urlaub, 300 Adams St., Brooklyn, N. Y. 2-1-26-B

FOR SALE—Vion 33 Power Spotting Scope, 2-inch objective, fine condition \$20.00 plus express. Will ship C.O.D. subject to examination. J. W. Fleming, Hartington, Nebr. 2-1-26-F

FOR SALE—S. & W. 22-32. Perfect inside, a few scratches outside. \$22. Will trade B. and L. Binoculars (Army) with case, fine condition, for sleeping bag. C. A. Shaw, Groton, Mass. 2-1-26

FOR SALE—Model 1899 Feather weight Savage Cal. 300, take-down with pistol grip stock, Lyman gold bead on front. This rifle is in brand new condition, but has been shot a few times to line up sights, is in factory box. A bargain at \$38.00. C. Richmond Jr., 10 Williams Street, Bradford, Penna. 2-1-26-G

FOR SALE—No. 39 Marlin, like new, absolutely perfect inside and out with ivory bead front sight and Lyman's No. 1A peep sight, waterproof canvas case and marbles jointed cleaning rod, cost thirty-five dollars, take \$22.50 delivered. H. N. Spencer, 1601 Railway Exchange Bldg., St. Louis, Mo. 2-1-26-F

OLD TIMERS FOR SALE—Many, including Kentucky Flint and Precision, Flint, Preen, and Ctg. shot guns. Philadelphia derringers, Confederate Colt, Colts, Flint, Percn., and Ctg. Rifles, pistols, derringers. Some Indian goods etc. 2-cent stamp for illustrated lists or correspondence. Milt. Ward 4907 Jackson Boul. Chicago, Ill. 2-1-26-C

FOR SALE—Fox shotguns. Stirlingworth Grade, 20-ga. and 16-ga., 28-in barrels. Modified & Full. Same as new. Not over 10 shells fired in each. \$10.00 Each. Colt S. A. .32-20. 7½-in. barrel. Like new. \$25.00. Will ship C.O.D. Allow inspection on small deposit. No trades. R. H. Rolph, Jr., 36 Stone St., Rahway, N. J. 2-1-26-C

FOR SALE—Win. single shot .22 L.R. Heavy Target rifle: 24½-in. 7/8 diam. octagon barrel, Lyman Sights. Wt. 3¼ lbs. Excellent \$17.00. Krag 22 L. R. Musket, pre-war, new, absolutely perfect, fired less than 50 shots. Including long brass cleaning rod \$16.00. Charges collect. W. L. Shaw, 16 Salmon St., Manchester, N. H. 2-1-26-F

SELL OR TRADE—Sharples Allsteel Cream Separator in Factory Packing, never used, cost \$100. Press Grafex 5 x 7 with 2 Film Pack Adapters, Bausch & Lomb Tessar Lens, value about \$25. 21 Triumph 3X Traps, never used, \$10. 6-inch x 10-inch Folding Camp Grate with legs, never used, folds for haversack 50c. 5 dozen Rose Patent Folding Duck Decoys made of wood, cost \$15 per dozen, want \$10 per dozen. Stonbridge Folding Lantern, never used \$1. 4X German Hunting Telescope, Sight very light, with upper part of mounts. Leather lens protector, made by A. Jackenkroll of Berlin, \$12. 24 ga. Eley of London Primed shells, \$3 per 100. 28-ga. Eley of London Pin Fire Primed shells \$2.50 per 100. 8 ga. Eley of London Primed Pin Fire shells \$4 per 100. All shell are in original condition, never used or primed by me. Made in U. S. A. Hollenbeck Gun Co., Wheeling, West Virginia. 3 Barrel gun 32-40x12x28 \$80. Also 12 Remington Trap Grade Hammerless double ejector, bead sights, recoil pad \$80. S. R. Bridge, 214 West 34 St., New York, N. Y. 2-1-26-C

FOR SALE—Winchester Model '92, 32-20 cal. Solid frame, octagon barrel, fitted with Marble flexible peep on tang, adjustable leaf rear and gold bead front sights. Canvas case. Fired less than 100 times, perfect condition except slight scratch on stock. \$18. Ewing Carter, 1503 Minnesota Ave., Bessemer, Ala. 2-1-26

SELL OR TRADE—.22 N.R.A. Savage scope blocks, fine \$18.00; 32-40 Winchester S.S. target sights \$18.00; 34x5½ plate or film pack camera F.8 lens, case, complete developing and printing outfit, enlarger (\$50 value) \$25.00; Buckskin & Elk leather. WANT—About ten muskrat skins; .22 Colt Auto.; .30-06 Springfield 12-ga. Model 12 Winchester; .30-06 Ammunition. T. W. Hildemann, Austin, Mont. 2-1-26-G

TRADE—One brand new Marlin hammer pump gun, 12-ga., 30-in barrel, matted receiver, highest grade Circassian walnut stock and forearm, beautifully checked, rubber recoil pad, receiver nicely engraved, a beauty. One brand new .250-3000 Savage, curly grained stock Lyman receiver peep. Marble's adjustable rear and Sheards gold bead front sights, two discs, extra cocking piece dovetailed for cocking piece sight if desired, swivels and Whelen gunslings, brand new. One Winchester S.S. specially bored for .25-20 W.C.F. barrel, medium weight, 27 in. long, no sight slots, scope blocks attached, Lyman combination front, Marble's flexible tang sight, swivel and sling, new, gilt-edge accuracy. One L. C. Smith light weight field shotgun, 12-ga., 28-in. barrels right open, left mod. weight 6 lbs. 8 oz. brand new. WANT—Three-barrel gun, .25 Rem. Auto. featherweight Springfield, 25-25 Winchester. All high grade only. Andrew J. Dohnansky, 822 Dewey St., Bridgeport, Conn. 2-1-26-B

SELL OR TRADE—Pistols and revolvers: Pre-War .38 Colt Automatic, 6-inch bbl., inside perfect with \$4.75 Audley holster \$19. 9-mm. Steyr Mannlicher Automatic with cartridges, inside perfect \$18. .32 Pre-War J. P. Sauer & Son, Roth Patent Automatic revolver-shaped grip \$16. .22 Smith & Wesson 10-inch S.A. single shot nickel-plated, barrel badly pitted, \$16. .22 Smith & Wesson double action, single shot Monogram on right side and Monogram grips, pitted \$16. .22 Remington Action Single shot, 16-inch barrel, adjustable sights, fine for free shooting, inside perfect \$35. Ithaca 20-ga. Auto and Burglar Gun \$22, fine condition: .38 Smith & Wesson Special, 6-inch barrel, round butt, pearl grips, pre-war, barrel slightly pitted \$19. 44-40 Colt double action Frontier 6-inch barrel \$14, another for 45 Webley cartridge \$16. .38 Colt Lightning Model, nickel plated \$14. 45-1917 Smith & Wesson \$19. .38 Smith & Wesson Hammerless, 3½-inch barrel, nickel, inside pitted, pre-war \$17. .38 Smith & Wesson Hammerless, 5-inch barrel, nickel, fine, with pearl grips, in a plush lined wooden case, leather covered with compartment for revolver and cartridges, with cartridges, and compartment for cleaning rod, case alone worth \$12, will take \$25, for complete outfit. .50 Remington Single Shot pistol, fine inside \$12. .45 Colt Automatic \$20. .32-44 Smith & Wesson nickel plated, inside slightly pitted \$16. .44 Colt Single Action, nickel, converted from percussion with cartridges \$11. 44 star double action percussion \$6. Model of Smith & Wesson 35 Automatic showing mechanism and how it works \$7. Webley & Scott 25 automatic \$12.50, another .32 cal. \$14. Gladly send C. O. D. S. R. Bridge, 214 West 34 St., New York, N. Y. 2-1-26-C

Application for Individual Membership

THE SECRETARY,

National Rifle Association of America,

Suite 1108 Woodward Building, Washington, D. C.

Sir: Believing that the aims and purposes of the National Rifle Association of America are patriotic and beneficial to the United States I request favorable consideration of my application for _____ Dollars, the fee for same.

I certify that I am a citizen of the United States. Age _____ Born _____ in the County of _____ State of _____

National Rifle Association of America

The object of the National Rifle Association of America is to encourage marksmanship throughout the United States, particularly in the direction of qualifying as finished marksmen those individuals who may be called upon to serve in time of war; to encourage competition in marksmanship between teams and individuals; to encourage legislation for the establishment and maintenance of ranges; to secure the issue of military rifles and ammunition to those practising on these ranges, and to create a public sentiment in respect to the necessity of rifle practice as a means of national defence.

Different Memberships

Benefactor	\$1,000.00
Patron	500.00
Endowment	100.00
Life	25.00
Annual	2.00
Junior	.50

Annual Membership
Expires with the
Calendar Year

Name _____

Address (Street) _____

Address (City and State) _____

Business _____

Recommended by _____

(All checks should be made payable to the National Rifle Association)

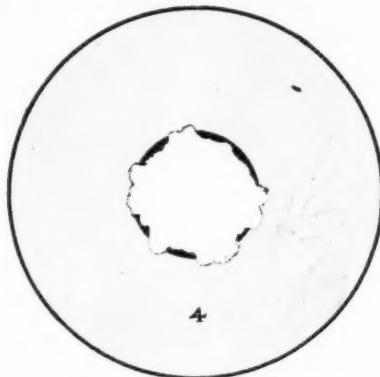


1785 CONSECUTIVE SHOTS IN THE BULL

That is the record made by Clifford Pool, 18, of Crestline, Ohio on the standard junior target at 50 feet on December 30, 1925. 1785 consecutive bull's-eyes!

Pool's shooting broke the existing record for straight bull's-eyes at this distance and for this type of shooting. He gave a wonderful exhibition of accuracy, skill and endurance.

And incidentally, this shooting gave remarkable proof of the phenomenal accuracy and holding qualities of his rifle—the WINCHESTER Model 52.



Composite of targets shot by Clifford Pool of Crestline, Ohio in making his wonderful record of 1785 consecutive shots at 50 feet. Target approximately two-thirds actual size.



Clifford Pool, 18 years old, Crestline, Ohio who on Decem^r 30, 1925 made the wonderful record of 1785 consecutive bull's-eyes at 50 feet.

TER Model 52—and the uniformity and "everlasting" dependability of his ammunition—WINCHESTER Precision—

Pool started shooting at 9:10 A.M. and fired his last shot at 8:33 P.M. His shooting was continuous throughout the day except for time out twice for lunch.

This wonderful record was made shooting prone on the indoor range of the Crestline, Ohio, Railroad Y. M. C. A. where General Secretary, E. M. Farris has developed a remarkable squad of rifle shooters who were heard from in no uncertain tone in the Junior Matches at Camp Perry in 1925.

Pool used his WINCHESTER Model 52 "as issued" with factory sights and WINCHESTER Precision 75—the famous small-bore combination of victory. Such skill and endurance demand shooting equipment that will stick with the shooter to the limit.

In making this new record Pool surpassed the remarkable shooting made by Samuel L. Moore at Newtonville, Mass., who made 1500 straight bull's-eyes on National Rifle Day, 1925, using the same WINCHESTER combination.

WINCHESTER REPEATING ARMS COMPANY

New Haven, Conn., U. S. A.

WINCHESTER



Huntington's Marines

A TROPICAL SUN baked the dry slopes above Guantanamo Bay. Through the chaparral and the dense bush around the Marine encampment flitted the shadowy forms of the guerrillas—Spaniards, with the cruelty of the Inquisition and the guile of Indians!

Four awful days—from June 10th to June 14th, 1898. Four sleepless nights, filled with the humming note of Mauser bullets, the pop of Spanish rifles, and with trees that turned into men. And then . . .

Early in the morning, June 14th, four companies of devildogs, wearied by the insistent blows of an unseen enemy, charged unwaveringly into the stronghold of the bushwhackers, capturing their blockhouse and destroying their fortifications.

Thus the Marines, under Lieut. Col. Robert W. Huntington, won the first battle on Cuban soil and effectively established a base of operation against Santiago.

E. I. DU PONT DE NEMOURS & CO., Inc.
Wilmington, Delaware

DU PONT

Du Pont Powder has been inseparably connected with the history of every organization in the Service. In 1802, practically all du Pont Powder was made for military purposes. Today, 98% is produced for industrial uses.

